

Agricultural Value Chains

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AGRICULTURAL VALUE CHAINS

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The promotion of agricultural value chains is a key approach in German and international development cooperation for integrating smallholders into national and international production and trade processes. Its aim is to improve agricultural production and processing so that higher incomes and more paid employment are generated for the target groups. Since the food crisis of 2007/2008, value-chain promotion strategies have increasingly been used to support the development objective of food security as well as that of poverty reduction.

The evaluation comprised analyses of documentation and literature, a portfolio review of German development cooperation projects and programmes, expert interviews, and four comprehensive case studies. Data for the latter were gathered on the different intervention levels and the various stages of the value chains selected for analysis. The results provided a basis for drawing conclusions, with reference to the OECD-DAC criteria, on such questions as the extent to which promoting agricultural value chains contributes to poverty reduction and food security in different contexts. The evaluation also explored the implications for two important trans-sectoral themes of German development cooperation: gender equality and environmental sustainability.

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SUMMARY

Background, objective and overall appraisal of the evaluation

Promoting agricultural value chains has become an important strategy for integrating smallholders into national or international production and trade processes. It has been employed in international as well as German development cooperation since the turn of the millennium. Through the modernisation of agricultural production and processing combined with enhanced market accessibility, such promotion aims to generate higher incomes and more paid employment in the value chain, and thus ultimately help to reduce poverty. Since the food crisis of 2007/2008, development cooperation has also made increasing use of value-chain approaches to support food security.

Despite the significance of agricultural value chains in development cooperation, to date hardly any studies or evaluations have been published which corroborate the contribution made by value-chain promotion to poverty reduction or food security. Nor has anyone so far produced an overall survey of the German portfolio of value-chain promotion activities. Therefore the objective of this evaluation was to find out, based on the analysis of the German bilateral promotion portfolio, whether, how, and in what circumstances promoting agricultural value chains contributes to poverty reduction and food security. In addition, the evaluation analysed the consequences for gender equality and environmental sustainability, which are important trans-sectoral themes of German development cooperation. Furthermore, human rights aspects were also studied.

Being a systemic approach, value-chain promotion is a complex instrument of development cooperation. According to the criteria defined in the course of the evaluation, systemic promotion activities address several stages of the chain and represent an interplay of diverse activities with different actor groups on multiple levels. The present evaluation only took into account projects and programmes which met these 'systemic promotion' criteria. The evaluation analysed value-chain projects and programmes of German bilateral development cooperation in the period 2003–2013.

The results of the evaluation show that, because of its systemic approach, promoting agricultural value chains

represents an appropriate strategy for integrating smallholders and other target groups in rural regions into value chains, and thereby helping them to improve their living conditions. Particularly given the economic significance of the agricultural sector, the modernisation of agricultural production and its alignment towards the needs of agricultural markets can be classified as highly relevant. Value-chain promotion is effective in this respect and contributes in various ways to the development objectives selected for analysis. These impacts are subject to certain constraints, however.

Promoting agricultural value chains brings about gains in productivity and improvements in quality management and in marketing. These lead to higher incomes and a general improvement of the economic situation for the target groups reached. The constraints that limit impacts on the target dimensions of poverty reduction and food security arise primarily from the barriers to entry for a subset of the groups targeted by development policy. Because they are poorly endowed with resources – (land, knowledge, and capital) – it is impossible for chronically poor population groups to be direct target groups of value-chain promotion. These groups can only be reached indirectly, at best. Moreover, the scale and the reach of impacts are particularly dependent on the product promoted: high-value export products command greater economic potential but, because they are susceptible to fluctuating prices and global market demand, they are also fraught with higher risks. Promoting staple foods for the domestic market entails lower profit margins but also lower barriers to entry for target groups so that broader-scale impacts are achieved. In addition, such promotion has a direct effect on the availability of foods, which represents an important food-security criterion, particularly in food-insecure regions. The flexibility and diversity of the approach give rise to high expectations about the attainable objectives, so that there is a risk of overburdening objective systems and consequently blurring the promotion's distinctness of profile. Larger (supra-regional) projects and programmes are in more of a position to tackle several objectives in parallel.

The described barriers to entry for the chronically poor and other marginalised groups (women, landless people, etc.) also pose a problem in terms of human rights aspects as set out in

the guidelines on incorporating human rights standards and principles published by the German Federal Ministry for Economic Cooperation and Development (BMZ). The impacts on gender equality are likewise affected by constraints: often the promotion does not reach women effectively because they have poorer access to land, to other resources, and to decision-making processes. Last but not least, environmental aspects are not systematically incorporated into the conception and intervention logic of most projects and programmes, which is why much of the potential for positive impacts is not unlocked.

The reasons for the ambivalent findings concerning the impacts in the various objective categories mainly reside in the complexity of the approach, the socio-economic realities in the partner countries, and the inadequate resourcing of development partners' projects and programmes in terms of time, personnel and finances. This shortage of capacities means that complexity cannot be taken into account sufficiently in the course of planning and implementation. A lack of gender-based ex-ante analyses, value-chain-specific reporting, monitoring and evaluation systems, and shortcomings in the cooperation between Technical Cooperation (TC) and Financial Cooperation (FC) can be cited here as examples of the kinds of problems encountered during implementation.

Methodological approach

In view of the complex and multifaceted nature of systemic value-chain promotion, an appropriate methodological approach was called for which flexibly examines the various areas of intervention, contextual factors, and interdependencies during the course of the promotion. A theory-based approach following the principles of a *realist evaluation* was chosen for this purpose. A *realist evaluation* is underpinned by the assumption that there is no such thing as an intervention that is equally effective in all situations for all target groups, which means that great significance always attaches to the context. *Realist evaluation* therefore asks not only *whether* something works but also, importantly, *how* and *why* something is effective, *for whom* and *in which conditions*. Having started by (re-)constructing the impact logic of the promotion, on which the investigation will focus,

corresponding mechanisms for change are identified which reflect the interplay between the intervention and the behaviour of the target groups, and the resulting observable changes within a given context.

At the beginning of the evaluation, an initial inventory was compiled of the entire portfolio of German bilateral value-chain promotion in the agricultural sector. For a more extensive survey of content and further systematisation, a portfolio review was carried out in which the projects and programmes of the various implementing organisations (*Deutsche Gesellschaft für Internationale Zusammenarbeit* – GIZ; *KfW Entwicklungsbank* – KfW; the *Physikalisch-Technische Bundesanstalt* – PTB; *sequa*; and *Deutsche Investitions- und Entwicklungsgesellschaft* – DEG)¹ were examined to find out about their promotion approaches, activities, objectives and results achieved. Starting from those projects and programmes which fulfilled the criterion of systemic promotion, central intervention areas were subsequently identified and an overarching impact logic was derived. Furthermore, telephone interviews were carried out with experts from German development cooperation on the promotion of agricultural value chains. Here the emphasis was placed on documenting relevant framework conditions for successful value-chain promotion, and concretising particular mechanisms for change and interdependencies. The data-gathering was accompanied throughout by an analysis of documentation and literature. Apart from project documents, this chiefly took in studies and evaluations relevant to value chains.

The case studies constitute the centrepiece of the present evaluation. They served as the basis for a comprehensive empirical review of the previously derived impact logic and mechanisms, making use of a structured comparison of four value-chain promotion profiles. This involved carrying out a total of 175 interviews and group discussions with different groups of actors. The evaluation looked at German promotion of the rice and cashew value chains in Burkina Faso, and of the maize and pineapple value chains in Ghana. The principal considerations in the selection of these chains were the nature of the promoted product (staple food or export product) and of the respective promotion approaches (structure-oriented versus firm-centric) and (country) contexts. Following on

¹ GIZ (German international cooperation); KfW (Germany's state development bank); PTB (German national metrology institute); *sequa* (implementing organisation of the German business community); DEG (German investment and development corporation).

from the case studies, the results of the different survey instruments were compiled and compared with one another.

Survey of the German portfolio

The inventory of the entire portfolio of German value-chain promotion revealed that in the study period 2003–2013, 140 projects and programmes were carried out in total, which involved 169 individual phases of promotion relating to value chains. This constitutes a broad promotion landscape operating on a range of levels and through diverse individual support activities to address higher-order development objectives like poverty reduction, food security, environmental protection and resource conservation, health, or gender equality. For the remainder of the evaluation, however, just under half of these projects and programmes were considered, as only these met the ‘systemic promotion’ criterion.

In comparing the various promotion approaches it became clear that no standard, portfolio-wide definition of value-chain promotion existed. However, analysis according to the type of implementation suggested that two main higher-order promotion approaches can be distinguished: 1) broadly framed, structure-oriented approaches devoted to comprehensive support of various value-chain actors on different levels, and 2) firm-centric approaches which concentrate on lead private-sector actors and their immediate environment. However, hybrid and cooperative forms of these two promotion approaches are also common – e.g. structure-oriented approaches sometimes also include firm-centric components, mostly in the form of integrated public-private partnership (PPP) activities.

The structure-oriented projects and programmes, implemented predominantly by GIZ, promote both the actors in the chain on the micro level as well as their institutional and enabling environment on the meso level. Moreover, they support state institutions on the macro level in the shaping of beneficial framework conditions. A majority of these programmes consist of cooperation projects with the German state development bank (KfW), which is commissioned with complementary FC components in these cases. In contrast, the firm-centric promotion approach is particularly found in smaller-scale developPPP.de projects, the implementation of which is

undertaken by GIZ, DEG and sequa, and most of which are dedicated to building up specific supply chains.

According to the impact logic reconstructed on the basis of the portfolio review, value-chain promotion aims to contribute to the development objectives of poverty reduction, food security and gender equality (as a trans-sectoral theme) by increasing or creating incomes and paid employment. In the present portfolio this takes place by means of activities, processes and services provided with a view to achieving three central results: increased production and productivity, improved quality management and improved marketing. With regard to the systemic promotion of value chains, in the course of the analysis of the entire portfolio it was possible to identify five central intervention areas in which the implemented activities can be located:

- Intervention area 1: Development of the private sector
- Intervention area 2: Market development
- Intervention area 3: Organisational development, institutional development, business relationships
- Intervention area 4: Access to information, technologies, advisory and financial services
- Intervention area 5: Quality standards and certification

By virtue of the structuring yet at the same time systemic character of the intervention areas, these form individual survey areas in which to consider the overarching impact logic of value-chain promotion, and indeed of the analytical framework of this evaluation. The intervention areas are not, however, closed or discrete segments of the system. Individual support activities can be ascribed (at least in part) to several intervention areas or associated with activities from other intervention areas. Nevertheless, all intervention areas are to be viewed as systemically cohesive, in keeping with the basic assumption that underlies systemic value-chain promotion. The implementation of activities in the intervention areas was supported in the course of projects and programmes by further services in the field of policy consulting. The focus of this evaluation did not permit any analysis/establishment of direct links and correlations between sectoral policy consulting and specific value-chain promotion.

Results and conclusions

The evaluation of the collected data was conducted both along the identified intervention areas and along the OECD-DAC evaluation criteria. The following discussion of the impacts of value-chain promotion in the studied development objective categories refers to structure-oriented and to firm-centric approaches in equal measure. The special characteristics of firm-centric approaches will be elucidated subsequently in a separate section. The observed constraints on impacts are rooted in deficits in the planning and implementation of projects and programmes which are outlined in the final section.

Relevance

Due to the significance of the agricultural sector in many partner countries and the fact that projects and programmes are concentrated on smallholders and small processors, promoting agricultural value chains can fundamentally be classified as relevant for poverty reduction and food security. However, the degree of relevance is heavily dependent on the promoted product and the resulting barriers to entry, profit margins and risks for the target groups. The barriers to entry arise from the fact that a minimum level of resources (land, capital, labour etc.) is necessary for participation in a value chain. While export value chains normally present higher barriers to entry, in most cases they also offer greater economic potential. As exports are susceptible to price fluctuations and demand in the global market, however, they pose higher risks than the production of staple foods for the national market. Value chains for staple foods have lower barriers to entry along with lower profit margins, so that poorer smallholder households can be more easily integrated into the chain and the broadscale impact thereby increased. Promoting these chains has a direct effect on the availability of foods which, particularly in food-insecure regions, is an important aspect of food security. In selecting the chain, therefore, criteria like barriers to entry and broadscale impact, risk, contribution to food security, profit margins etc. have to be weighed up against each other since they have important implications for the priority objectives and target groups of development policy.

Additional risk-minimising activities to integrate smallholders of borderline market viability could further enhance the relevance of value-chain promotion. In this regard, various forms of contract farming adapted to each given context have proven their worth. However, in relation to risk-minimising activities, other approaches – e.g. various asset-building activities, insurance schemes etc. – are also in need of improvement.

Due to their systemic approach, the promotion projects can be designed very flexibly so as to enable results across the spectrum of actors at different stages of the value chain. This versatility of application enables value-chain projects to contribute to different development objectives, on the one hand; yet on the other hand, there is a risk that objective systems will be overburdened so that the promotion loses its distinctness of profile and can no longer appropriately address the full range of target dimensions.

Effectiveness

All five intervention areas (IA) and/or the support activities and mechanisms for change in these intervention areas have their own specific functions within the framework of value-chain promotion:

- Support for market access (IA 2) and in relation to advisory and financial services (IA 4) are intended to put in place the necessary framework conditions for the value chain so that all other support activities in the other intervention areas have prospects of generating results;
- Quality and product standards as well as the strengthening of the given structures on the national level for the development, implementation and monitoring of these standards (IA 5) are intended to create the necessary framework conditions on the macro level in which the market and the value chain can develop appropriately;
- The development of entrepreneurial awareness and the transfer of concrete business administration skills (IA 1) are intended to enable actors to take the step from focussing purely on production, as previously, towards market orientation, and hence a more economic approach to their activities;

- The strengthening of organisational and institutional development, the establishment of business relationships by creating interactive forums and trust building, i.e. the promotion of vertical and horizontal integration² within a chain (IA 3) are key elements of a value chain. The support activities in this intervention area should decisively contribute to interlinking all elements in a value chain across its various levels and actor groups so as to ensure market-viable production of the promoted product.

The support activities lead to appreciable improvements on the various outcome levels: production and productivity, incomes at target-group level, quality of products in quality management, marketing and paid employment. Evidence for the increase in paid employment is weaker than for the other aspects.

The analysis of the impacts of the different support activities on the actor groups and their behaviour shows mixed results. Activities on the individual level tend to be better accepted by the target groups; greater awareness and knowledge of quality aspects along with practical application of such knowledge can also be found in this area, provided that adequate resourcing permits this. The activities for structuring the chains, in contrast, i.e. addressing their horizontal and, especially, vertical integration, are more difficult to design; one problem in this connection is the heterogeneity of interests among the various actor groups.

Coherence, complementarity and coordination

Against the backdrop of the high systemic requirements and diverse intervention areas, the broad positioning of German development cooperation in the field of agricultural value-chain promotion makes sense. Distinctions can be made between pure TC or FC projects and programmes, joint programmes of GIZ and KfW, develoPPP.de projects, and the PTB's CALIDENA instrument. Within this spectrum, German development cooperation possesses a multitude of institutions and approaches which are equipped to do justice to the complexity of the value-chain approach in the implementation of value chains and in their given contexts. In the course of the evaluation it became apparent, however, that the existing potential for synergies in the cooperation of

TC and FC, particularly in the context of joint programmes, could be exploited more consistently. Cooperation with other donors who are also active in the agricultural sector is another area in which the case studies provided indications of potential for improvement.

Overarching development impact

In accordance with the overarching impact logic, promoting agricultural value chains contributes to poverty reduction in the target groups when it leads to an increase in production, improvement of marketing and quality management, and consequently to an increase in incomes and paid employment. Alongside the case studies, the project documentation analysed in the course of the portfolio review also indicates that the projects make important contributions to the attainment of development objectives.

The results of the evaluation show that participation in a value chain is contingent upon having a minimum level of resources. Even the target groups that are ultimately reached by a supply-chain promotion initiative come into the category of 'poor' people. But it must be clearly understood that the main concentration of participants in the value chain come from actor groups with more resources and choices, whereas chronically poor households cannot benefit from the promotion directly, and therefore cannot be the primary target group of value-chain promotion. The often insufficient differentiation of the poorer population strata in the conception of projects and programmes harbours the risk that development cooperation may lose sight of chronically poor people as well as other marginalised groups, since it is assumed that all poor people can potentially be reached. In order to reach these population groups, other suitable support activities need to be implemented as a complement to value-chain promotion. Differentiated target-group analyses are an important instrument here in order to arrive at a realistic assessment of the target group structure and the reachable actors. On the basis of these analyses, specific promotion activities can be developed and implemented which make participation easier for the worse-off target groups.

With reference to the impacts of value-chain promotion on food security, the evaluation comes to the conclusion that projects and programmes to promote staple foods by means of

² In the evaluation, vertical integration is understood to mean the cooperation of various stages of a value chain; horizontal integration describes the cooperation of individual enterprises at the same stage (e.g. producers).

boosting production, minimising post-harvest losses and improving both quality and food safety do improve the local availability of the promoted products. By virtue of higher incomes and hence improved access to food, a certain contribution to food security is likewise found for the non-staple foods studied. In the case studies and in the other data sources, no evidence was found that the production of non-staple foods impairs food security by displacing subsistence farming.

While positive impacts can thus be identified in relation to the availability of foods and access to the same, there are other important aspects with an influence on food security which are only incorporated into value-chain projects and programmes in exceptional cases, if at all. These include, for example, knowledge and awareness of nutrition. Hence there are some uncertainties attaching to the effects of value-chain promotion on food security.

In the project documentation of the promotion projects and programmes, gender equality usually occurs as a trans-sectoral objective that is specified as a binding principle in German development cooperation. However, the inclusion of women is often built in schematically (e.g. women must make up a certain percentage of the smallholders benefiting from the promotion) and often not tailored to the given cultural and economic realities. The result can be that value-chain promotion fails to reach the women who are the intended target group. In contrast, individual programmes in the German portfolio have activities orientated specifically towards women in their programme, such as training measures addressed exclusively to women. The case studies in particular highlighted the potential for successful integration of women into value chains, although overall this has not been harnessed fully enough as yet.

Since environmental aspects have been given very little consideration in the objectives of value-chain promotion hitherto, positive impacts in this area mainly arise merely as 'side effects' in the course of achieving other objectives. Only sporadically did the case studies yield evidence about the effects of value-chain promotion on environmental sustainability; this painted a mixed picture, albeit with a generally positive trend. An explicit integration of

environmental aspects into the objective systems is found in projects and programmes engaged in the promotion and, where applicable, certification of organic agriculture. This focus is frequently found in developPPP.de projects and programmes. In the case studies and in the literature, however, there was also occasional evidence of negative environmental impacts of value-chain promotion, mainly due to risks associated with growing intensification of production, e.g. water pollution or soil degradation.

Sustainability

Owing to its systemic approach, the promotion of agricultural value chains provides good preconditions overall for the sustainability of the impacts achieved. Support activities for organisational development, vertical and horizontal integration, in particular, are potentially structurally effective and favour the sustainability of the promotion in several ways: they raise the degree of organisation within the chains by establishing or strengthening value-chain committees, (umbrella) associations or farmers' organisations. By supporting exchange between the actors in the value chain, these structures can contribute to sustainably reinforcing contractual supply relationships. This is particularly significant in light of the observed fragility of contractual relationships. Furthermore, activities supporting organisational development and the promotion of business relationships help to disseminate information about required product standards sustainably to the various stages of the chain.

It emerged from the case studies, however, that the implementation of activities to support sustainable impacts is only rarely successful. In particular, the existence of newly created organisations is jeopardised once the promotion comes to an end, either if they are strongly perceived as externally initiated, or if there is a lack of self sufficient financing and ownership. To ensure the long-term survival of organisations, it is therefore helpful to rely on pre-existing structures and to support these in providing an attractive service-offering for their members. A further conclusion that can be derived from these considerations is that the sustainability of the promotion is also influenced by the choice of product, and that the advantageous products are those which already play an important role in the given region and therefore tend to have adequate organisational structures in place.

Ultimately the sustainability of promotion can also be jeopardised by external factors over which the projects and programmes can exert very little influence. This applies above all to export-oriented chains, since they are susceptible not only to weather-related risks, (regulatory) policy and social framework conditions, but also, above all, to changes in global market trends and prices.

Special characteristics of firm-centric approaches

Unlike structure-oriented approaches, firm-centric approaches are organised in line with the activities of a lead company, and therefore set different focuses both with regard to objectives and target groups and, especially, with regard to the interventions. For the implementation of entrepreneurial objectives, firm-centric approaches concentrate particularly on improving the quality and quantity of products and establishing stable supply relationships. Creating stable framework conditions is only secondary, and likewise, efforts towards vertical and horizontal integration efforts are pursued only in the company's immediate environment, for the most part. In addition, companies engage exclusively in export-oriented chains and prefer to cooperate with producers who have already attained market viability. Special activities for the targeted integration of especially under-resourced actors (subsistence-oriented farmers, landless people, etc.) are not the rule, because the companies would consider the requisite time and effort to be disproportionately great. Thus, firm-centric approaches are not suitable for all interventions within value-chain promotion, but can play an important part in respect of certain activities. For instance, access to value-chain-specific advice and need-based financing represent substantial bottlenecks when it comes to the effectiveness of the individual intervention areas; however, state advisory services frequently lack the human and financial capacities to fulfil their mandate. Lead firms can take on the organisation and provision of advisory services, inputs and financing and thus support effective integration of the target groups into a value chain. These results from the evaluation underscore the high potential for synergies in combined approaches that utilise the strengths of both structure-oriented and firm-centric approaches.

The sustainability of firm-centric approaches is dependent upon – leaving aside external factors which cannot be

influenced – how well the projects and programmes succeed in optimising processes of manufacturing and processing and building up reliable business relationships.

Complexity of implementing value-chain promotion

Systemic value-chain promotion is a sophisticated instrument with a multitude of divergent activities and actor groups at various stages of the chain. The planning and implementation of such a complex approach is not pursued systematically in German development cooperation for a variety of reasons:

- The complexity of value-chain promotion makes considerable demands in terms of time, human and financial resources, such as the need to carry out extensive value-chain, context and target-group analyses in advance of the promotion. These are necessary in order to strengthen the direct orientation towards poverty reduction and food security, raise the effectiveness and efficiency of the support activities, and prevent unintended negative impacts, e. g. on especially poor and marginalised groups. The evaluation showed, however, that no data from ex-ante analyses are on hand in most projects and programmes.
- Value-chain promotion is usually one element of a larger programme with other components. Reporting and monitoring take place at programme level; thus there is no value-chain-specific reporting and no monitoring system tailored to the value chain. This makes it almost impossible to trace the impacts achieved with any certainty.
- The changes made to the commissioning procedure have reduced the flexibility of the programmes. Long-term planning is no longer feasible as a result, and it is difficult to ensure the sustainability of activities.
- For the purposes of effective systemic promotion, the geographical focusing of development cooperation programmes is very emphatically called into question in the context of value-chain promotion. Value-chain promotion activities are commonly assigned to the localities in which the primary product in the chain is produced. But these localities are not necessarily the locations of the processing enterprises and exporters, which are often based in the vicinity of particular centres. This means that locality-focused approaches are sometimes in conflict with value-chain

approaches, which try as far as possible to keep their sights on the chain as a whole.

- The number of chains promoted within the scope of a project or programme has an influence on the required capacities, both on the German side and on the part of the development partners. It became clear from the evaluation that promoting an excessive number of value chains overloads projects and programmes, making some reduction necessary during the term of the project.
- In the course of the evaluation it became evident that the projects and programmes do not always succeed in conveying the benefits of promotion activities, or of technical or institutional innovations, to the target groups and in motivating them to adopt these and take them forward on their own responsibility.

Recommendations

1. Based on their great potential both for poverty reduction and for food security, the promotion of agricultural value chains should continue to be accorded high priority in the portfolio of German development cooperation. In order to prevent overburdening of the objective systems, in value-chain projects and programmes a clear set of priorities should be defined and specified regarding the objectives to be achieved and target groups to be reached, and the promotion profile, e.g. choice of the product to be promoted, should be systematically aligned with this. For the chronically poor, who remain beyond the reach of value-chain promotion, complementary support activities are necessary. These should not be part of the value-chain promotion, to avoid overburdening it, but may be the content of further programme components of a project or programme.
2. To further boost the relevance of value-chain promotion for direct poverty reduction and food security, a mandatory requirement should be introduced to examine, at the conceptual stage of projects and programmes, which staple food chains are worth promoting. These should serve as the foundation for a criteria-based decision (risk minimisation, profit maximisation, broadscale effectiveness and contribution to food security) about the choice of chain. The relevance to food security should be additionally heightened by improving the nutritional quality of the

foodstuffs. This may be done, for example, by introducing or promoting special nutrient-conserving post-harvest treatments, storage and processing techniques.

3. For the better inclusion of risk-averse smallholders who fall short of direct market viability, and to safeguard their household incomes, appropriate risk-minimising strategies should be defined for these target groups (e.g. saving and other forms of asset accumulation, insurance schemes, state employment or sales guarantees, different forms of contract farming, etc.) and corresponding promotion activities carried out. The exchange of information about successful packages of support activities, the development of new approaches, and the further development and ultimate piloting of corresponding activities should be highly prioritised in order to improve the integration of these target groups into value chains.
4. Value-chain promotion should be more strongly aligned with environmental aspects, since there is great potential for positive impacts in this area whilst the danger of negative impacts is also present. German development cooperation has an appropriate instrument for assessing the environmental impacts of a project or programme in its Environmental and Climate Assessment tool. In addition, it should be examined on a case-by-case basis whether, and to what extent, cooperation between value-chain promotion and other projects oriented towards climate-change mitigation, environmental protection and resource conservation in a country may generate synergies.
5. The planning and implementation of projects and programmes must do justice to the complexity of value-chain promotion. The implementing organisations should carry out context- and gender-differentiated target-group analyses as standard practice, and building on these, formulate a full-fledged impact logic for the specific value chain which goes beyond the generic impact logic of the given programme. The differentiated elaboration of the intervention areas as well as the territorial delimitation of the promotion should also take place on the basis of these analyses. To strengthen institutional learning and to improve results-orientation, furthermore, a value-chain-specific reporting system and a value-chain-adapted monitoring and evaluation system

should be implemented. Care should be taken to involve the partners and their capacities appropriately in this process. Activities to boost capacities in the partner countries must be integrated into the promotion to facilitate this, if need be.

6. In order to improve the feasibility of planning value-chain projects and programmes, the possibility should exist to organise project cycles flexibly, and thus in divergence from the prescribed formats. In this way, an orientation phase for value-chain projects and programmes should be facilitated, to permit the systematic implementation of necessary and success-enhancing value-chain analyses and initial pilot activities. Over the term of projects, decisions should be made based on these analyses. In the orientation phase, the number of chains to be promoted – adjusted to the partners' and the projects' capacities – should also be defined. Because of the resource constraints affecting both programmes and development partners as well as the complexity inherent in implementing value-chain promotion, the aim should preferably be to focus on a lesser number of chains but to promote these more intensively.
7. In light of the diverse challenges of value-chain promotion, the portfolio should continue to be broadly framed in future. The combination and coordination of different approaches and development cooperation organisations, e.g. within joint programmes, should be improved, however. Since financing and infrastructure are of such high relevance to the effectiveness of value-chain promotion, particular attention should be paid at this juncture to the closer interlinking of FC and TC in value-chain projects within the scope of joint programmes.
8. Based on an actor analysis, an appropriately adapted mix of organisations and institutions (lead firms, state advisory institutions, and organisations of the value chain actors) should be enabled or supported to make advisory and financial services and agricultural inputs available to the target groups. In this connection extra attention should be devoted to the establishment and ongoing development of contract farming systems.
9. The BMZ should promote the development of innovative financial services, e.g. by means of contract farming systems, refinancing mechanisms, matching funds, or indeed microfinance instruments. In this regard, especially innovative approaches that specifically address the relationships between the actors on the micro and meso levels should be piloted in selected projects and programmes. The designated pilot projects should also receive scientific backup and evaluation using experimental or quasi-experimental methods of impact assessment – and should initially be exempted from assessments of overall programme success.
10. More attention should be paid to the gender dimension of value-chain promotion. In the conception and implementation of upgrading strategies, a review should be undertaken of what impact they have on promoting the equality of men and women, particularly women's participation and inclusion in the value chain. This means that as early as in the mapping stage of a value chain, a gender analysis must be conducted of the roles of and relationships between the male and female actors, and structural inequalities identified. Promotion activities, particularly advisory and financial services, should be conceived in such a way that they promote women's access to value chains. For example, this may mean that, depending on the cultural realities, separate promotion activities have to be carried out for men and women, or that projects and programmes hire female advisers since they will reach women in the target groups more easily. Human and financial resources must be made available for this.
11. The broad support of diverse institutional structures within the scope of systemic value-chain promotion forms a sound basis for sustainable development of agriculture and rural areas. It should be retained as a core element of German value-chain promotion. In order to ensure the sustainability of value-chain promotion in future, it should – whenever possible – build on structures that are already in place. As far as possible, development cooperation should refrain from both initiating external structures and taking charge of certain functions in existing structures. To increase the actors' sense of ownership, the structures for the participating actor groups should rapidly achieve tangible improvements, particularly during the start-up phase of the promotion.

RÉSUMÉ

Contexte, objectif et appréciation globale de l'évaluation

Depuis le début du XXI^e siècle, la promotion des chaînes de valeur agricoles (CVA) constitue une stratégie importante dans le cadre de la coopération au développement internationale et allemande, destinée à intégrer des petites exploitations agricoles dans les processus productifs et commerciaux nationaux ou internationaux. Par une modernisation de la production agricole et de la transformation ainsi que par un meilleur accès au marché, les bénéficiaires devraient profiter de revenus plus élevés et d'une augmentation de l'emploi rémunéré au sein de la CVA, ce qui, en fin de compte, contribuerait à la réduction de la pauvreté. Depuis la crise alimentaire en 2007/2008, les programmes de soutien CVA dans le cadre de la coopération au développement visent aussi de plus en plus la sécurité alimentaire.

Malgré l'importance des chaînes de valeur agricoles au sein de la coopération au développement, il y a encore peu d'études ou d'évaluations prouvant que la promotion des CVA contribue à la réduction de la pauvreté ou à la sécurité alimentaire. Jusqu'à présent, il n'existe d'ailleurs aucun aperçu portant sur le portefeuille allemand de la promotion des CVA. Pour cette raison, la présente évaluation avait pour but de découvrir, sur la base de l'analyse du portefeuille de la coopération au développement allemande bilatérale, si, comment et dans quelles circonstances la promotion des CVA contribue à la réduction de la pauvreté et à la sécurité alimentaire. En outre, l'évaluation a analysé les incidences sur l'égalité des sexes et la durabilité environnementale en tant que thèmes transversaux importants de la coopération au développement allemande. Des questions ayant trait aux droits humains ont également été examinées.

En tant qu'approche systémique, la promotion des CVA constitue un instrument complexe de la coopération au développement. Conformément aux critères définis dans le cadre de l'évaluation, les mesures de soutien systémiques interviennent dans différentes étapes de la chaîne et conjuguent plusieurs activités avec différents groupes d'acteurs à plusieurs niveaux. Dans la présente évaluation, seuls les projets remplissant ces critères de soutien systémique

ont été pris en compte. L'évaluation a analysé des projets CVA de la coopération au développement bilatérale allemande réalisés au cours de la période 2003 à 2013.

Les résultats de l'évaluation font clairement ressortir que, grâce à son approche systémique, la promotion des CVA constitue une stratégie appropriée pour intégrer les petites exploitations agricoles ainsi que d'autres groupes cibles en milieu rural dans les chaînes de valeur et contribuer ainsi à l'amélioration de leurs conditions de vie. Vu en particulier l'importance économique du secteur de l'agriculture, la modernisation de la production agricole et l'orientation de celle-ci vers les besoins des marchés agricoles revêtent une pertinence évidente. À ce sujet, la promotion des CVA est efficace et contribue aux objectifs examinés de la politique de développement. Ces impacts comportent cependant certaines limitations.

La promotion des chaînes de valeur agricoles conduit à des gains de productivité et aide à améliorer la gestion de la qualité et la commercialisation, ce qui fait augmenter les revenus des groupes cibles touchés et améliore la situation économique générale. Les limitations concernant les impacts sur les objectifs de la réduction de la pauvreté et de la sécurité alimentaire découlent en premier lieu des barrières à l'entrée pour une partie des groupes cibles de la politique de développement. Le manque de ressources disponibles (terres, savoir-faire, capital) fait en sorte que les populations dont la pauvreté est chronique ne puissent être pris en compte comme un groupe cible direct de la promotion des CVA. Elles peuvent être atteintes tout au plus indirectement. En outre, l'ampleur et la portée des impacts dépendent particulièrement du produit promu : en termes d'exportation, les produits de qualité ont un potentiel économique plus élevé, mais ils présentent aussi davantage de risques en raison des variations de prix et de la demande sur le marché mondial. La promotion de denrées alimentaires de base destinées au marché national comporte certes une marge bénéficiaire plus faible, mais abaisse aussi les barrières à l'entrée du marché pour les groupes cibles facilitant ainsi leur participation. Elle a en plus un effet direct sur la disponibilité des denrées

alimentaires ce qui constitue un critère important pour la sécurité alimentaire, en particulier dans les régions où elle n'est pas garantie. Une approche aussi souple et diversifiée suscite des attentes très élevées sur le plan des objectifs réalisables. En réalité, elle risque de surcharger les systèmes cibles et de réduire la netteté du profil de la promotion. Les projets (transrégionaux) de plus grande envergure sont mieux à même de mettre en œuvre plusieurs objectifs de la même manière.

Les barrières à l'entrée décrites pour les populations vivant dans la pauvreté chronique et autres groupes marginalisés (femmes, sans-terre, etc.) posent en outre problème du point de vue des droits humains, un fait qui est soutenu par le guide du Ministère fédéral de la coopération économique et du développement (BMZ) visant au respect des normes et principes en matière de droits humains qui constitue le cadre de référence de l'évaluation. Les impacts sur l'égalité des sexes sont également limités : souvent les femmes ne bénéficient pas suffisamment de la promotion puisqu'elles ont un accès plus limité aux terres et autres ressources ainsi qu'aux processus de prise de décision. Les aspects environnementaux, enfin, ne sont pas pris en compte de manière systématique dans la conception et la logique d'intervention de la majorité des projets, de telle sorte que les potentiels d'effets positifs ne sont pas exploités.

Les résultats ambivalents quant aux effets dans les différentes catégories d'objectifs sont généralement dus à la complexité de l'approche et aux réalités socio-économiques dans les pays partenaires ainsi qu'à l'insuffisance de ressources en temps, en personnel et financières des projets et des partenaires au développement. Ce manque de capacités a pour conséquence que la complexité n'est pas suffisamment prise en compte lors de la planification et mise en œuvre. À titre d'exemple, les problèmes rencontrés lors de la mise en œuvre incluent le manque d'analyses ex ante de groupes cibles spécifiques partant d'un regard de genre, de rapports spécifiques en matière de CVA et de systèmes de suivi et d'évaluation ainsi que des faiblesses dans le lien entre la Coopération technique (CT) et la Coopération financière (CF).

Méthodologie

Compte tenu de la nature multi-facettes et complexe de la promotion systémique des CVA, il fallait une méthodologie répondant avec suffisamment de souplesse aux différents domaines d'intervention, facteurs contextuels et relations de cause à effet dans le cadre de la promotion. Pour cela, une approche basée sur la théorie a été choisie selon les principes d'une approche d'évaluation réaliste. Une telle approche d'évaluation réaliste est basée sur l'hypothèse qu'il n'existe pas d'interventions adaptées à l'ensemble des groupes cibles et que le contexte relatif revêt donc une extrême importance. Une approche d'évaluation réaliste ne s'occupe ainsi non seulement de la question *si*, mais surtout *comment* et *pourquoi* il y a un effet *pour qui* et *dans quelles circonstances*. En partant d'une (re-)construction de la logique d'effets de la promotion, des mécanismes d'action reflétant l'interaction entre l'intervention et le comportement des groupes cibles sont identifiés, cette interaction conduisant à des changements observables dans un contexte respectif.

Au début de l'évaluation, le portefeuille global de la promotion bilatérale allemande des chaînes de valeur dans le secteur agricole a tout d'abord été répertorié. Pour approfondir la thématique et en vue d'une systématisation, un examen de portefeuille a été réalisé dans le cadre duquel les projets des différents organismes d'exécution¹ ont été analysés du point de vue de leurs approches de promotion, activités, objectifs et impacts atteints. Sur la base des projets ayant satisfait au critère d'une promotion systémique, des champs d'action prioritaires ont ensuite été identifiés et une logique globale relative aux effets a été élaborée. En outre, des interviews téléphoniques ont été menées avec des experts de la coopération au développement allemande pour la promotion des CVA. Dans ce contexte, l'accent était mis sur le recensement des conditions cadres pertinentes d'une promotion efficace des CVA ainsi que sur la concrétisation des relations de cause à effet et des mécanismes d'action spécifiques. La collecte de données était accompagnée d'une analyse documentaire et bibliographique systématique incluant non seulement des documents de projet, mais surtout des études et évaluations pertinentes dans le cadre des CVA.

¹ Société allemande de coopération internationale – Deutsche Gesellschaft für Internationale Zusammenarbeit – GIZ, Banque de développement KfW – KfW, Institut nationale de métrologie allemand, Physikalisch-Technische Bundesanstalt – PTB, sequa, Société allemande d'investissement et de développement, Deutsche Investitions- und Entwicklungsgesellschaft – DEG

Les études de cas constituent l'essence de la présente évaluation. Sur la base de la comparaison structurée de quatre profils CVA, elles ont permis de réaliser un examen empirique approfondi de la logique d'effets et des mécanismes d'action élaborés. À cet égard, un total de 175 interviews et discussions de groupe ont été menées avec différents groupes d'acteurs. Au Burkina Faso, la promotion allemande des CVA « riz » et « noix de cajou » a été examinée, au Ghana celle des CVA « maïs » et « ananas ». Ces chaînes ont été sélectionnées en priorité sur la base du type de produit promu (aliment de base ou produit d'exportation) ainsi que des approches de promotion respectives (amélioration structurelle en général par opposition à des approches visant une entreprise principale) et des contextes (des pays). À l'issue des études de cas, les résultats obtenus par les différents outils de collecte ont été synthétisés et confrontés entre eux.

Bref aperçu sur le portefeuille allemand

Le recensement de l'ensemble du portefeuille de la promotion allemande des CVA a donné pour résultat qu'au total 140 projets ou 169 phases de promotion distinctes en relation avec les CVA ont été réalisés pendant la période 2003 à 2013 qui a fait l'objet de l'examen. Le paysage de la promotion est très vaste et cherche à atteindre à divers niveaux et par l'intermédiaire de mesures individuelles multiples des objectifs généraux de la politique de développement, tels que la réduction de la pauvreté, la sécurité alimentaire, la protection de l'environnement et des ressources, la santé ou l'égalité entre les femmes et les hommes. Pour la poursuite de l'analyse, un peu moins de la moitié de ces projets ont été pris en compte car seuls ceux-ci correspondaient au critère d'une promotion systémique.

La comparaison des différentes approches de promotion a fait apparaître que la compréhension de la promotion des CVA n'est pas uniforme pour l'ensemble du portefeuille. L'analyse en fonction du type de mise en œuvre a toutefois montré qu'il est possible de distinguer principalement deux approches globales de promotion : 1) des approches d'amélioration structurelle à large échelle consacrées à la vaste promotion des différents acteurs CVA à des niveaux les plus variés ainsi que 2) des approches visant une entreprise centrale qui

mettent l'accent sur des acteurs clés du secteur privé et leur environnement. Des formes mixtes ou coopératives de ces deux approches de promotion sont également très courantes ; ainsi les approches d'amélioration structurelle comprennent en partie aussi des dimensions visant une entreprise centrale, le plus souvent sous forme d'actions intégrées de partenariat public-privé (PPP).

Les projets structurels, réalisés avant tout par la GIZ, soutiennent aussi bien les acteurs de la chaîne au niveau micro que leur environnement institutionnel et de soutien au niveau méso. Ils apportent en outre leur soutien aux institutions publiques au niveau macro en ce qui concerne la création de conditions cadres propices. La plupart de ces programmes sont des projets de coopération avec la KfW qui est de surcroît responsable des composantes CF. Par contre, l'approche de promotion visant une entreprise centrale est utilisée surtout pour des partenariats de développement à petite échelle avec le secteur privé (develoPPP.de) dont la mise en œuvre est assurée par la GIZ, la DEG et sequa et qui essaient principalement de mettre en place des chaînes d'approvisionnement spécifiques.

Selon la logique d'effets résultant de l'examen de portefeuille, la promotion des CVA devrait contribuer aux objectifs de développement, notamment la réduction de la pauvreté, la sécurité alimentaire et l'égalité des sexes (en tant que thématique transversale), par l'augmentation des revenus, ou bien la génération de tels revenus, et de l'emploi rémunéré. Dans le cadre du présent portefeuille, cela est réalisé par des activités, processus et prestations fournies qui devraient avoir trois impacts fondamentaux : une augmentation de la production et de la productivité, une meilleure gestion de la qualité et une commercialisation améliorée. Concernant la promotion systémique des chaînes de valeur, cinq champs d'action prioritaires ont été identifiés au cours de l'analyse de l'ensemble du portefeuille dans lesquels se situent les activités mises en œuvre :

- Champ d'action 1 : Développement du secteur privé
- Champ d'action 2 : Développement du marché
- Champ d'action 3 : Développement des organisations, développement institutionnel, relations commerciales
- Champ d'action 4 : Accès à l'information, à la technologie, aux services de conseil et financiers
- Champ d'action 5 : Normes de qualité et certification

Grâce à leur caractère structurant, mais en même temps systémique, les champs d'action correspondent à différents domaines d'analyse de la logique d'effets générale de la promotion des chaînes de valeur et donc du cadre analytique de la présente évaluation. Cependant, les champs d'action ne doivent pas être considérés comme des domaines à systèmes fermés ou nettement séparés. Certaines mesures peuvent être mises en relation (au moins en partie) avec plusieurs champs d'action ou sont liées à des mesures d'autres champs d'action. Tous les champs d'action sont liés entre eux du point de vue systémique, conformément à l'hypothèse de base de la promotion systémique des chaînes de valeur. Dans le cadre des projets, la mise en œuvre d'activités au sein des champs d'action a été soutenue par d'autres prestations dans le domaine des conseils politiques. À cause de la focalisation de la présente évaluation, il n'a cependant pas été possible d'analyser les corrélations et liens entre les conseils politiques sectoriels et la promotion spécifique des chaînes de valeur ni d'établir de tels liens ou corrélations.

Résultats et conclusions

L'évaluation des données recueillies a été effectuée aussi bien sur la base des champs d'action identifiés que sur la base des critères d'évaluation OCDE/CAD. Les considérations ci-après concernant les effets de la promotion des chaînes de valeur sur les catégories d'objectifs en matière de politique de développement valent autant pour les approches d'amélioration structurelle que pour les approches visant une entreprise centrale. Les particularités de ces dernières seront traitées ci-dessous dans une section à part. Les effets limités observés sont dus à des déficits dans la planification et mise en œuvre des projets qui seront présentés dans la dernière section.

Pertinence

En raison de l'importance du secteur agricole dans beaucoup de pays partenaires et de la concentration des projets sur les petites exploitations agricoles et de transformation, la promotion des CVA doit être considérée comme fondamentalement pertinente pour la réduction de la pauvreté et la sécurité alimentaire. La pertinence dépend toutefois dans une large mesure du type de produit promu et des barrières à l'entrée, marges bénéficiaires et risques pour les groupes cibles qui en résultent. Les barrières à l'entrée sont liées au minimum de ressources (terre, capital, main d'œuvre, etc.) nécessaires pour pouvoir participer à une chaîne de valeur. Tandis que les barrières à l'entrée sont généralement plus élevées pour des chaînes de valeur dans le cadre de l'exportation, le potentiel économique de celles-ci est également plus grand. Toutefois, la dépendance à l'égard des fluctuations de prix et de la demande sur le marché mondial comporte des risques plus élevés que la production de denrées alimentaires de base pour le marché national. Bien que les chaînes de valeur des denrées alimentaires de base dégagent des marges plus faibles, elles représentent aussi des barrières à l'entrée moins élevées, de sorte que les ménages de petits paysans puissent être intégrés plus facilement dans la chaîne ce qui facilite leur participation. Leur promotion a un effet direct sur la disponibilité des denrées alimentaires ce qui constitue un aspect important pour la sécurité alimentaire, en particulier dans les régions où elle n'est pas garantie. Lors de la sélection de la chaîne, il est donc important de prendre en considération des critères tels que les barrières à l'entrée et la participation des groupes cibles, le risque, la contribution à la sécurité alimentaire, les marges, etc. et de les comparer entre eux, puisqu'ils ont des implications importantes pour les groupes cibles et les objectifs du développement devant être atteints de manière prioritaire.

La pertinence de la promotion des chaînes de valeur peut être renforcée par des mesures de réduction des risques supplémentaires permettant d'intégrer les petites exploitations agricoles dont les possibilités de commercialisation sont très limitées. Dans ces cas, différentes formes de cultures sous contrat adaptées au contexte relatif se sont révélées être un succès. En ce qui concerne les mesures de réduction des risques, des améliorations pour d'autres approches sont aussi nécessaires, par ex. la création de richesses, les assurances, etc.

Impact

Conformément à la logique d'effets globale, la promotion des CVA contribue à réduire la pauvreté des groupes cibles grâce à l'accroissement de la production, l'amélioration de la commercialisation et gestion de la qualité ainsi que, par la suite, à une augmentation des revenus et de l'emploi rémunéré. Les documents des projets analysés dans le cadre de l'examen du portefeuille complètent la constatation résultant des études de cas, c.-à-d. que les projets contribuent de manière significative aux objectifs de développement.

Les résultats de l'évaluation montrent qu'un minimum de ressources est indispensable pour pouvoir participer à une chaîne de valeur. Les groupes cibles du développement qui bénéficieront finalement de la promotion des CVA font eux aussi partie des populations pauvres. Mais il doit être clair que surtout les groupes d'acteurs disposant de plus de ressources et d'options d'action participeront à la chaîne de valeur, tandis que les ménages vivant dans la pauvreté chronique ne bénéficieront pas directement de la promotion. Pour cette raison, ils ne constituent pas le groupe cible primaire de la promotion des CVA. Dans la conception des projets, les catégories démunies de la population ne sont souvent pas suffisamment différenciées, de sorte que les personnes vivant dans une pauvreté chronique et autres groupes marginalisés sont parfois quelque peu oubliés par la coopération au développement parce que l'on s'attend à s'adresser potentiellement à tous les pauvres. Pour intégrer ces groupes de population, il est nécessaire de mettre en œuvre d'autres mesures appropriées complétant la promotion des chaînes de valeur. Dans ce contexte, les analyses différenciées des groupes cibles constituent un instrument important permettant de parvenir à une appréciation réaliste de la structure des groupes cibles et des acteurs avec lesquels on peut interagir. Sur la base de ces analyses, il est possible de développer et mettre en œuvre des mesures de promotion spécifiques qui facilitent la participation des groupes cibles plus démunis.

En ce qui concerne les effets de la promotion des CVA sur la sécurité alimentaire, l'évaluation conclut que les projets promouvant les denrées alimentaires de base à l'aide d'une augmentation de la production, d'une réduction des pertes après récolte et d'une amélioration de la qualité et de l'hygiène

des aliments améliorent aussi la disponibilité locale des produits promus. Par l'intermédiaire d'une augmentation des revenus et donc d'un meilleur accès aux aliments, même la promotion des produits qui ne constituent pas des aliments de base contribue dans une certaine mesure à la sécurité alimentaire. Dans les études de cas et les autres sources de données, rien n'indique que les cultures produisant d'autres produits que les denrées alimentaires de base affectent la sécurité alimentaire suite à la disparition de l'agriculture de subsistance.

On peut donc certes observer des effets positifs relatifs à la disponibilité des denrées alimentaires et à l'accès à celles-ci. Néanmoins, il y a d'autres aspects importants influant sur la sécurité alimentaire qui ne sont pas pris en compte par les projets CVA (ou seulement dans des cas exceptionnels). Il s'agit par ex. de connaissances et de la conscience en matière de nutrition. De cette façon, certaines incertitudes persistent en ce qui concerne les effets de la promotion des CVA sur la sécurité alimentaire.

Dans les documents des projets promus, l'égalité des sexes est le plus souvent mentionnée comme objectif transversal fixé de manière contraignante dans la coopération au développement allemande. La participation des femmes reste souvent schématique (par ex. les femmes doivent représenter un certain pourcentage des petits paysans soutenus) et n'est pas adaptée aux conditions culturelles et économiques respectives. De ce fait, la promotion des CVA risque de ne pas atteindre les femmes qui font pourtant partie du groupe cible. En revanche, certains projets du portefeuille allemand comprennent des activités spécialement adressées aux femmes, par ex. des mesures de formation réservées aux femmes. Les études de cas en particulier ont révélé qu'il est possible d'intégrer les femmes avec succès dans les chaînes de valeur ; cependant ce potentiel n'est pas encore suffisamment exploité.

Jusqu'à présent, on n'a pas accordé suffisamment d'attention aux aspects environnementaux dans les objectifs de la promotion des CVA ; de cette façon, les effets positifs dans ce domaine sont plutôt des « effets secondaires » produits au cours de la mise en œuvre d'autres objectifs. Dans les études de cas, peu d'éléments probants ont permis d'établir des effets

de la promotion des CVA sur la durabilité environnementale ; le tableau qu'ils présentent est contrasté, mais à tendance positive. Une intégration explicite des préoccupations environnementales dans les systèmes cibles est observée chez les projets visant à promouvoir l'agriculture biologique et, le cas échéant, à certifier les produits qui en sont issus. Cette orientation est très fréquente chez les projets de développement. Cependant, les études de cas et la littérature ont confirmé en partie que la promotion des CVA peut aussi avoir des impacts environnementaux négatifs. Dans la plupart des cas, il s'agit de risques liés à une intensification croissante de la production, par ex. la pollution des eaux ou la dégradation des sols.

Durabilité

En fonction de l'approche systémique, la promotion des chaînes de valeur agricoles crée, dans l'ensemble, de bonnes conditions pour assurer la durabilité des effets atteints.

Les mesures de développement des organisations et d'intégration verticale et horizontale en particulier peuvent agir sur les structures et favorisent la durabilité de la promotion de façon multiple : ainsi, le degré d'organisation au sein des chaînes est augmenté grâce à la mise en place ou au renforcement des comités de chaînes de valeur, associations et fédérations ou organisations paysannes. En raison de la promotion de l'échange entre les acteurs des CVA qui en découle, ces structures peuvent contribuer au renforcement durable des relations contractuelles pour la livraison. Cela revêt une importance particulière dans le contexte des relations contractuelles fragiles qui ont été observées. Les mesures de développement des organisations et de promotion des relations commerciales contribuent en outre à diffuser durablement des informations sur les exigences requises pour les produits aux différents niveaux de la chaîne.

Les études de cas ont aussi mis en évidence que la mise en œuvre de mesures destinées à promouvoir des effets durables n'est que rarement couronnée de succès. La durabilité des organisations nouvellement créées en particulier est menacée une fois que la promotion a pris fin si ces organisations sont perçues comme étant initiées de l'extérieur ou s'il y a un manque de capacités d'autofinancement et d'appropriation. Pour assurer la durabilité des organisations, il convient donc de s'appuyer sur les structures déjà existantes et de les aider à proposer une

offre de services attrayante à leurs membres. Sur la base de ces considérations, on peut conclure que la durabilité de la promotion est influencée également par le choix du produit à promouvoir. Les produits les plus avantageux sont ceux qui jouent déjà un rôle important dans la région en question et qui disposent ainsi davantage de structures organisationnelles adéquates.

Finalement, la durabilité de la promotion peut aussi être mise en péril par des facteurs externes sur lesquels les projets n'ont pas d'incidence significative. Ceci vaut surtout pour les chaînes orientées vers l'exportation puisqu'elles ne sont non seulement soumises aux aléas climatiques ainsi qu'aux conditions cadres politiques, réglementaires et sociales, mais surtout aux changements de tendance et de prix des marchés mondiaux.

Particularités des approches visant une entreprise centrale

Contrairement aux approches d'amélioration structurelle, les approches visant une entreprise centrale sont organisées sur la base des activités d'une entreprise centrale. C'est pourquoi elles fixent d'autres priorités en ce qui concerne les objectifs et groupes cibles et surtout en ce qui concerne les mesures d'intervention. Pour atteindre les objectifs de l'entreprise, ces approches se concentrent en particulier sur l'amélioration de la qualité et l'augmentation de la quantité des produits ainsi que sur la création de relations de livraison stables. La mise en place de conditions cadres stables est secondaire et l'intégration verticale et horizontale n'est poursuivie en général que dans l'environnement direct des entreprises. De plus, les entreprises s'engagent exclusivement dans les chaînes orientées vers l'exportation et préfèrent travailler avec des producteurs ayant déjà accès au marché. Des mesures spéciales pour l'intégration ciblée d'acteurs aux ressources particulièrement limitées (exploitations de subsistance, sans-terre, etc.) ne sont pas couramment appliquées car cela nécessiterait des efforts disproportionnés pour les entreprises. Les approches visant une entreprise centrale ne conviennent donc pas à toutes les interventions au sein de la promotion des CVA, mais elles peuvent jouer un rôle important dans le cadre de certaines activités. Ainsi, l'accès aux conseils spécifiques pour les CVA et aux financements fondés sur les besoins constitue une contrainte majeure pour l'efficacité des

différents champs d'action. En fait, les services de vulgarisation gouvernementaux ne disposent souvent pas des ressources humaines et financières nécessaires pour accomplir leur mission. Les entreprises centrales peuvent prendre en charge l'organisation et la fourniture de services de conseil, intrants et ressources financières et encourager ainsi la participation des groupes cibles à une chaîne de valeur. Ces résultats de l'évaluation témoignent de l'énorme potentiel de synergies des approches combinées qui valorisent aussi bien les avantages des approches d'amélioration structurelle que ceux des approches visant une entreprise centrale.

Outre les facteurs externes non influençables, la durabilité des approches visant une entreprise centrale dépendra de la façon dont les projets réussiront à optimiser les processus de production et transformation et à établir des relations commerciales fiables.

Complexité de la promotion des CVA

La promotion systémique des CVA est un instrument ambitieux comprenant un grand nombre d'activités et de groupes d'acteurs divergents à différents niveaux de la chaîne. Pour des raisons diverses, la coopération au développement allemande ne consacre pas une attention systématique à la planification et mise en œuvre d'une approche aussi complexe :

- La complexité de la promotion des CVA exige en général d'importantes ressources en temps ainsi qu'humaines et financières, par ex. pour réaliser des analyses approfondies des CVA, de l'environnement et des groupes cibles en amont de la promotion. Cela est nécessaire pour renforcer l'accent direct mis sur la pauvreté et la sécurité alimentaire, augmenter l'efficacité et l'efficience des mesures et éviter des effets négatifs non intentionnels, par ex. sur des groupes particulièrement pauvres ou marginalisés. L'évaluation a toutefois montré que pour la plupart des projets des données provenant d'analyses ex ante ne sont pas disponibles.
- La promotion des CVA est le plus souvent partie intégrante d'un projet plus vaste avec d'autres volets. Les rapports et le suivi s'effectuent au niveau du projet ; ainsi, il n'existe pas de rapports spécifiques pour les CVA ni un système de suivi adapté aux CVA. Un suivi des résultats obtenus n'est donc guère possible.

- Les procédures d'appel d'offres modifiées entraînent une moindre souplesse des projets. Par conséquent, une planification à long terme n'est plus possible et il devient difficile d'assurer la durabilité des activités.
- Dans l'optique d'une promotion systémique efficace, la question de la concentration régionale des projets de coopération au développement dans le cadre de la promotion des CVA devient particulièrement pressante. Les activités de promotion des CVA se réfèrent souvent aux régions d'origine du produit primaire de la chaîne. Cependant, les entreprises de transformation et les exportateurs ne sont pas nécessairement établis dans ces régions, mais se concentrent plutôt à proximité de certains centres. De cette façon, les approches régionales sont partiellement en conflit avec les approches CVA qui essaient de tenir compte de l'ensemble de la chaîne de valeur.
- Le nombre des chaînes promues dans le cadre d'un projet influence les capacités requises, aussi bien du côté allemand que du côté des partenaires du développement. L'évaluation a fait apparaître que les projets ne sont pas en mesure de maîtriser un nombre trop élevé de CVA promues et qu'il est nécessaire de les réduire au cours de la durée des projets.
- L'évaluation a aussi permis de souligner qu'en partie les projets ne parviennent pas à communiquer les bénéfices des activités de promotion ou des innovations techniques et institutionnelles aux groupes cibles et à les inciter à se les approprier et les poursuivre sous leur propre responsabilité.

Recommandations

1. Vu son potentiel élevé, tant en matière de réduction de la pauvreté qu'en matière de sécurité alimentaire, la promotion des chaînes de valeur agricoles devrait continuer à être mise au premier rang des priorités du portefeuille de la coopération au développement allemande. Pour éviter la surcharge des systèmes cibles, il convient de définir clairement les priorités des objectifs et les groupes cibles à adresser par les projets CVA. Les profils en matière de promotion doivent ensuite s'y concentrer de manière cohérente, par ex. en ce qui concerne la sélection du produit à promouvoir. Pour les populations vivant dans la pauvreté chronique qui ne peuvent

pas bénéficier de la promotion des CVA, des mesures complémentaires doivent être envisagées. Celles-ci ne devraient pas être intégrées à la promotion des CVA pour éviter de les surcharger. Elles peuvent néanmoins faire partie d'autres volets des programmes au sein d'un projet.

2. Pour renforcer encore plus la pertinence de la promotion des CVA au profit de la réduction directe de la pauvreté et de la sécurité alimentaire, il convient de prévoir une analyse obligatoire des chaînes d'aliments de base à promouvoir. Cette analyse devrait servir de base pour sélectionner la chaîne selon des critères déterminés (minimisation des risques, maximalisation des bénéfices, participation des groupes cibles et contribution à la sécurité alimentaire). La pertinence en matière de sécurité alimentaire devrait être renforcée par l'intermédiaire d'une meilleure qualité nutritionnelle des aliments. Cela peut être réalisé par exemple grâce à l'adoption ou la promotion de traitements de la récolte, techniques de stockage et de transformation spéciaux préservant les substances nutritives.
3. Afin de mieux intégrer les petites exploitations agricoles sans accès immédiat au marché et caractérisés par une aversion au risque et de garantir un niveau adéquat des revenus des ménages, il faudrait définir des stratégies minimisant les risques pour ces groupes cibles (par ex. épargne et autres formes de création de richesses, assurances, garanties gouvernementales en matière d'emploi ou de débouchés, différentes formes de cultures sous contrat, etc.) et réaliser des mesures d'encouragement correspondantes. L'échange sur des programmes d'actions réussis, le développement de nouvelles approches et la poursuite du développement et, finalement, le pilotage d'activités correspondantes devraient jouer un rôle important dans l'amélioration de l'intégration de ces groupes cibles aux CVA.
4. La promotion des CVA devrait donner plus de poids aux aspects environnementaux car à cet égard, il existe un grand potentiel d'effets positifs, mais aussi un risque d'effets négatifs. L'examen de l'environnement et du climat (*Umwelt- und Klimaprüfung*, UKP) constitue un instrument approprié dont dispose la coopération au développement allemande pour examiner les incidences environnementales d'un projet. En outre, il convient d'examiner au cas par cas si et dans quelle mesure une coopération entre la promotion

des CVA et d'autres projets axés sur la protection du climat, de l'environnement et des ressources peut générer des synergies.

5. La complexité de la promotion des CVA doit être prise en compte lors de la planification et mise en œuvre des projets. Les organismes d'exécution devraient généralement effectuer des analyses des groupes cibles différenciées en fonction de l'environnement et des sexes. Sur cette base, elles devraient formuler des logiques relatives aux effets spécifiques des CVA qui vont au-delà des logiques d'effets des projets génériques. La différenciation des champs d'action et la limitation territoriale de la promotion devraient se faire sur la base de ces analyses. Pour renforcer l'apprentissage institutionnel et améliorer l'orientation vers les résultats, il convient en outre de prévoir l'établissement de rapports spécifiques pour les CVA ainsi qu'un système de suivi et d'évaluation adapté. Dans ce cadre, il faut veiller à impliquer les partenaires et leurs capacités de manière adéquate. Le cas échéant, la promotion devra inclure des activités pour augmenter ces capacités dans les pays partenaires.
6. Pour faciliter la planification des projets CVA, les cycles de projet devraient être organisés de manière souple en s'écartant, si nécessaire, des formats prédéfinis. Ainsi, il convient d'accorder une phase d'orientation aux projets CVA pour mettre en œuvre de manière systématique les analyses CVA nécessaires, susceptibles d'augmenter leur taux de réussite, et pour pouvoir réaliser les premières activités pilotes. La décision quant à la durée des projets devrait être prise sur la base de ces analyses. Pendant la phase d'orientation, il convient de définir aussi le nombre de chaînes promues – en fonction des capacités des partenaires et des projets. Vu les ressources limitées tant des projets que des partenaires de développement et la complexité de la mise en œuvre de la promotion des CVA, il est préférable de promouvoir un nombre limité de chaînes, mais avec plus d'intensité.
7. Dans le contexte de la diversité des défis liés à la promotion des CVA, le portefeuille devrait rester largement diversifié aussi à l'avenir. Néanmoins, il faudrait améliorer la combinaison et la coordination des différentes approches et organisations de la coopération au développement, par exemple dans le cadre de programmes communs.

Dans ce contexte et en raison du haut degré de pertinence des financements et infrastructures pour l'efficacité de la promotion des CVA, une attention particulière doit être portée à l'intégration de la CF et CT dans les projets au sein des programmes communs.

8. Sur la base d'une analyse des acteurs, un ensemble approprié d'organisations et institutions (entreprises centrales, institutions de vulgarisation gouvernementales et organisations des acteurs CVA) devrait être qualifié ou encouragé à mettre des conseils, intrants et services financiers à la disposition des groupes cibles du développement. En outre, une attention particulière doit être accordée à la mise en place et au développement des systèmes de cultures sous contrat.
9. Le BMZ devrait promouvoir le développement de services financiers innovateurs, par ex. à travers des systèmes de cultures sous contrat, mécanismes de refinancement, fonds de contrepartie (*Matching Funds*) ou encore des instruments de la microfinance. À cet égard, des approches particulièrement innovantes consacrées spécialement aux relations entre les acteurs des niveaux micro et méso devraient être pilotées dans des projets sélectionnés. Les projets pilotes ainsi déterminés devraient aussi faire l'objet d'un suivi et d'une évaluation scientifiques à l'aide de méthodes de mesure de l'efficacité expérimentales ou quasi-expérimentales – il convient d'ailleurs de les exclure tout d'abord de l'évaluation du succès des projets globaux.
10. Une attention plus grande devrait être accordée à la dimension de genre dans le cadre de la promotion des CVA. Lors de la conception et mise en œuvre de stratégies de mise à niveau, il convient d'examiner quel est leur

impact sur la promotion de l'égalité entre les femmes et les hommes, en particulier sur la participation des femmes aux CVA. Cela signifie qu'il faut analyser les rôles des acteurs et actrices et les relations entre les acteurs et actrices selon des aspects de l'égalité des sexes et identifier les inégalités structurelles dès le « mapping » d'une chaîne de valeur. Les mesures de promotion, notamment les services de conseil et financiers, devraient être conçus de manière à encourager l'accès des femmes aux CVA. Cela peut impliquer que des activités de promotion séparées doivent être réalisées pour les femmes et les hommes en fonction des traditions culturelles ou qu'il faut avoir recours à des conseillères afin d'atteindre plus facilement les femmes des groupes cibles. À cette fin, des ressources humaines et financières doivent être mises à disposition.

11. Le vaste support de structures institutionnelles multiples dans le cadre d'une promotion systémique des chaînes de valeur constitue une bonne base pour le développement de l'agriculture et des zones rurales. Il devrait continuer à constituer un élément essentiel de la promotion allemande des CVA. Afin de garantir la durabilité future de la promotion des CVA, il devrait se baser – dans la mesure du possible – sur des structures déjà existantes. La mise en place de structures externes ainsi que l'exercice de certaines fonctions dans les structures existantes de la part de la coopération au développement devraient être évités autant que possible. Pour faciliter l'appropriation des acteurs, les structures devraient parvenir rapidement à des améliorations tangibles pour les groupes d'acteurs impliqués, en particulier dans la phase initiale de la promotion.

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ABBREVIATIONS

ACi
African Cashew Initiative

ADB
Asian Development Bank

BMGF
Bill and Melinda Gates Foundation

BMZ
*German Federal Ministry for
Economic Cooperation and
Development*

CmiA
Cotton made in Africa

CMO
Context – mechanism – outcome

COMPACI
*Competitive African Cotton
Initiative*

CS
Case study

DAC
*OECD Development Assistance
Committee*

DEG
*Deutsche Investitions- und
Entwicklungsgesellschaft*

ECA
*Environmental and Climate
Assessment*

Explnt
Expert interview

FAO
*Food and Agriculture
Organization of
the United Nations*

FBO
Farmer-based organisation

FBS
Farmer Business School

FC
Financial Cooperation

FGD
Focus group discussion

GAP
Good Agricultural Practices

GINT
Group interview

GIZ
*Deutsche Gesellschaft für
Internationale Zusammenarbeit*

GTZ
*Deutsche Gesellschaft für
Technische Zusammenarbeit*

HACCP
*Hazard Analysis and Critical
Control Points*

IA
Intervention area

IFAD
*International Fund for Agricultural
Development*

INT
Interview

IO
Implementing organisations

KfW
KfW Entwicklungsbank

KOR
Kernel out-turn ratio

M&E
Monitoring & evaluation

MOAP
*Market Oriented Agriculture
Programme in Ghana*

NGO
Non-governmental organisation/s

OECD
*Organisation for Economic
Co-operation and Development*

OVCF
Outgrower and Value Chain Fund

PABSO
*Programme for the Valorisation of
Floodplains*

PDA
*Programme for Agricultural
Development*

PPP
*Public-private partnership/
Development partnerships with
the private sector*

PR
Portfolio review

PTB
*Physikalisch-Technische
Bundesanstalt*

QI
Quality improvement

sequa
sequa gGmbH

TC
Technical Cooperation

UNIDO
*United Nations Industrial
Development Organization*

USAID
*United States Agency for
International Development*

VCC
Value-chain committee



1.

INTRODUCTION

The promotion of agricultural value chains is considered a central and highly promising approach in development cooperation. Value-chain promotion approaches gained a foothold in the agriculture and rural development sectors of German development cooperation around the start of this millennium, and have been undergoing continuous further development ever since: in the early years, value-chain promotion was seen mainly as a means of overcoming the purely production-oriented emphasis of many agricultural programmes and projects, and enabling the target groups to gain access to the market. Today, the promotion of agricultural value chains is viewed as an effective instrument to unleash a variety of potentials and achieve a range of objectives. Both German and international development-policy strategies affirm that value-chain projects and programmes will make an environmentally sustainable contribution to poverty reduction, help to ensure food security, and promote gender equality.

While proponents of value-chain promotion envision it as a panacea for sustainable economic development, critics point out that supporting sizeable private-sector companies oversteps the core remit of development cooperation; they also query the human rights implications of approaches oriented towards growth and competition. As regards the real extent to which value-chain promotion by development cooperation contributes to the stated development objectives, however, or possibly also produces negative effects, there is little evidence to date (Humphrey and Navas-Alemán, 2010; ADB, 2012; Henriksen et al., 2010; Hawkes and Ruel, 2011). The present evaluation helps to bridge this evaluation gap.

1.1

Framework and background of the evaluation

Development cooperation ascribes great significance to agriculture in many respects. In developing countries, the agricultural sector makes a substantial contribution to national income and economic growth, and despite the persistent trends towards urbanisation, large sections of the populations still live in rural regions and earn significant shares of their livelihoods in agriculture (World Bank, 2007).

Moreover, the sections of the population affected by poverty, which also represent the target groups of development cooperation, are concentrated in rural regions. Almost 80 per cent of the global poor live in rural areas (Olinto et al., 2013). Although the majority of global food production takes place in rural areas, rural poverty frequently goes hand in hand with chronic or temporary food insecurity. Apart from insufficient availability of food, other known causes of food insecurity are restricted access, inadequate quality and a poorly balanced diet. This presents women, in particular, with huge challenges since in many societies they are traditionally responsible for the nourishment of their households. Finally, agriculture – particularly smallholder agriculture – is dependent upon the environmentally sustainable use of natural resources. In addition, climate change is likely to have negative impacts on agricultural production for many developing countries.

How exactly agriculture contributes to supporting sustainable economic development and broadscale growth hinges substantially on the context of the international agricultural and food sector. The global agricultural sector has been characterised in recent years by considerable price and production volatilities in global agricultural markets (Vorley et al., 2012). These culminated in a food crisis in 2007/2008, which had major consequences for the poverty and food-supply situation in developing countries. As well as the negative impacts on food security in many developing countries, the crisis also gave an indication of opportunities that might arise from an integrated global agricultural sector. Smallholder agriculture³ in developing countries already contributes significantly to global agricultural production. Even though the role of smallholder agriculture is a contentious topic of debate among scientists, against the backdrop of a rapidly growing global population (on this, cf. Vorley et al., 2012), nowadays the preponderant view is that through integration into national, regional and global markets, smallholders can play a substantial part in reducing rural poverty and help to improve the world food supply – and can do so in ways that are environmentally sustainable and acceptable in human rights terms (IAASTD, 2009). An additional premise is that not only at the production stage does value-chain promotion provide a positive growth impetus and stimulate employment, but also at the stages of

³ According to the World Bank (2007) around 85% of smallholders have less than two hectares of land at their disposal. However, this is not a universally accepted definition of smallholder agriculture, and various authors (e.g. OECD, 2015a; FAO, n.y.) point out that the characterisation of a smallholder depends not only on the available land but also on numerous other agro-environmental, social and economic factors and on access to resources.

trade, transport and processing later in the chain. Based on these assumptions, agricultural value chains are increasingly perceived by development cooperation as an engine for sustainable economic development in rural regions, and are promoted by means of various approaches.

1.2

Object of the evaluation

The object of the evaluation is the promotion of agricultural value chains by German development cooperation. The present evaluation only takes account of promotion approaches satisfying the principle of “systemic promotion” as distinct from other approaches in the German agriculture and rural development portfolio. Accordingly, value-chain promotion refers to support for the entire system of a value chain. In keeping with the criteria defined in the course of the evaluation, systemic promotion addresses multiple stages of the chain and constitutes an interplay of diverse promotion activities with varied actor groups on different levels. As a rule, the foremost objective is to promote the target groups by boosting value creation and improving the competitiveness of a chain in its entirety.

A total of 140 programmes and projects of the Federal Ministry for Economic Cooperation and Development (BMZ) were included in the analysis. The organisations commissioned with their implementation were the *Deutsche Gesellschaft für Internationale Zusammenarbeit* – GIZ; the *KfW Entwicklungsbank* – KfW; the *Deutsche Investitions- und Entwicklungsgesellschaft* – DEG, *sequa gGmbH* and the *Physikalisch-Technische Bundesanstalt* – PTB.⁴ All the DEG and sequa projects and programmes and a proportion of those implemented by GIZ fall into the category of “development partnerships with business” under the BMZ’s *develoPPP.de* programme.

The time-frame for the object of study was delimited in the course of identifying relevant programmes and projects in consultation with the respective implementing organisations; it was finally specified as the period from 2003 to 2013.⁵

To delimit the scope further, the evaluation concentrated on the value-chain structures and processes within the partner countries of German development cooperation. As part of the analysis, the economic and political framework conditions were captured as contextual conditions. The activities and results of development cooperation on this level were not analysed.

Despite the delimitation adopted, overall it remains a complex object of evaluation. On the one hand, the complexity is based on the diverse socio-economic structures, processes and framework conditions of agricultural value chains. On the other hand, the diverse promotion activities and approaches of the individual implementation organisations contribute substantially to the scale of the evaluatory challenge. Ultimately, value-chain promotion is intended to contribute to a variety of objectives (principally poverty reduction, food security and gender equality). This, in turn, calls for versatile approaches when it comes to planning and implementation. The evaluation must therefore take account of a highly diversified landscape of actors and their social, economic and political interactions.

1.3

Aim and purpose of the evaluation

The aim of this evaluation is to produce empirically founded insights and recommendations about the contributions made by value-chain promotion to poverty-reduction and food-security impact. Because of the significant role of women in poverty reduction and food security, and the direct consequences of land management and processing operations on natural resources, the impacts of value-chain promotion will also be considered with regard to the trans-sectoral objectives of gender equality and environmental sustainability.⁶ Given the current relevance of the debate, human rights issues specific to value chains are also considered in relation to the evaluation process. The intended contribution of this evaluation is to advance the strategic development of value-chain promotion as a key instrument in the field of agriculture and rural development, as well as the practical implementation of value-chain projects and programmes on the level of project and programme delivery.

⁴ GIZ - German international cooperation; KfW - Germany's state development bank; DEG - German investment and development corporation; sequa gGmbH - implementing organisation of the German business community; PTB - German national metrology institute

⁵ The projects and programmes taken into account were those completed between 2003 and 2013 or approved for continuation beyond that period. At least one phase of promotion had to have been concluded by 2013.

⁶ Under the terms of the evaluation, environmental sustainability generally means the prudent management of natural resources. Soil and water require particular attention here, but the impacts on ecosystems and greenhouse gas emissions can also be significant. Finally, on the principle of comprehensive sustainability (environmental, economic, and social) the current and future impacts of climate change on agricultural production need to be taken into account.

Despite the increasing significance of value-chain promotion in German development cooperation, and the experience gained from working in more than 60 partner countries, there has not yet been any systematic inventory of the promotion portfolio or evaluation of results. At the same time, there is insufficient knowledge, either internationally or within German development cooperation, about the impacts and the causal pathways of systemic value-chain promotion. A further purpose of this evaluation is therefore to fill these gaps and to capture the impacts of different value-chain promotion approaches in different German development cooperation contexts. In addition, the promotion portfolios were systematised according to various value-chain approaches, and factors contributing to success or failure were highlighted.

1.4

Evaluation questions

In keeping with the purpose and the aims of the evaluation, the evaluation questions not only address the relevance of such promotion, but also strongly focus on its effectiveness and development impact. Beyond this, attention is paid to the sustainability of the promotion. To a lesser extent, questions of efficiency and coherence, complementarity and coordination were also included. The questions relevant to human rights relate to the evaluation's interest in establishing the impacts on poverty reduction and food security.

Relevance

1. To what extent is the promotion of agricultural value chains relevant to the achievement of the development objectives of poverty reduction and food security, against the backdrop of the differing conditions in the partner countries of German development cooperation?

Effectiveness

2. To what extent and via which causal pathways does value-chain promotion contribute to increasing production and productivity and to improving quality management and marketing? To what extent does the promotion help to improve incomes and employment, and which conducive and obstructive factors crucially influence the success of activities aimed at achieving the objectives?

Impact

3. To what extent does value-chain promotion make a contribution to achieving an overarching development impact?

Sustainability

4. To what extent can the results achieved through value-chain promotion be viewed as lasting?

Efficiency, coherence, complementarity and coordination

5. To what extent are the different value-chain promotion approaches within joint programmes and between the different implementing organisations in individual partner countries coordinated with each other? To what extent can synergies with business be achieved by means of development partnerships?

Human rights principles

6. To what extent is value-chain promotion focused on reaching disadvantaged groups and geared towards improving local food production?

The detailed evaluation questions are set out in the evaluation matrix (see Appendix 3). They were operationalised by means of evaluation criteria and enriched with details of their respective indicators, data sources and survey methods.



2.

CONTEXT

The following section begins by setting out some conceptual considerations on poverty reduction and food security as central themes of this evaluation. The subsequent briefly described “upgrading”

strategies lead over to the concepts of other bilateral and multilateral donors. These serve the purpose of embedding the subsequently presented German strategies for promoting agricultural value chains in the international context.

2.1

Conceptual considerations on poverty reduction and food security

Poverty reduction and food security together form the first of the eight *Millennium Development Goals* (MDGs) of the United Nations from the year 2000, and have also been agreed as key goals 1 (*no poverty*) and 2 (*zero hunger*) of the *Sustainable Development Goals* (SDG) adopted in September 2015. At the same time, the right to an adequate standard of living, encompassing the right to food, is a human right that is anchored in the UN Social Covenant (Article 11) of 1966. At the G7 summit held in 2015 at Schloss Elmau, the topic of food security likewise played a significant role: “As part of a broader effort involving our partner countries and international actors, and as a significant contribution to the Post 2015 Development Agenda, we aim to lift 500 million people in developing countries out of hunger and malnutrition by 2030” (G7, 2015). This should be achieved particularly by promoting women, smallholders and agricultural family businesses as well as by supporting sustainable agriculture and food value chains.

2.1.1 Poverty reduction

Poverty has multiple facets. According to the Development Assistance Committee of the Organisation for Economic Co-operation and Development (OECD-DAC), it is defined as “the inability of people to meet economic, social and other standards of well-being” (OECD, 2001: 37). Poverty reduction is aimed at enabling the poor to develop their economic, human, political and sociocultural potential. Within the framework of value-chain promotion, it is mainly economic development potentials and abilities that are supported for the purposes of poverty reduction.

Two fundamental concepts of “poverty” exist: “absolute” and “relative” poverty. The definition of “absolute” poverty is oriented to the abilities to meet existential basic needs of human survival such as food, safe drinking water, sanitation, health care, shelter, (primary) education, access to information and access to services; this is most appropriate for transnational comparisons (UN, 1995). The currently accepted absolute poverty line has been 1.90 US dollars per day since October 2015 (World Bank, 2015a). The concept of “relative” poverty relates to the same basic needs, but sets them in relation to the given national standards and the particular population being studied. Accordingly, somebody counts as poor if their income is below a certain percentage of the national average income (e.g. 60 per cent of average income is commonly used as the poverty line) (UNSD, 2005). In order to give due acknowledgement to the context-dependency of value-chain promotion, the use of the concept of “relative” poverty is recommended. Since the source of income is the focus of interest in when evaluating value-chain promotion, changes in income (as far as they can be recorded) are an obvious evaluation criterion for poverty reduction.

The particular potential of promoting agricultural value chains resides in the agricultural sector’s significance for economic development and poverty reduction in developing countries. According to a comparative study by Schneider and Gugerty (2011) there are numerous empirical findings supporting the existence of a causal connection between the improvement of agricultural production and the reduction of poverty. International estimates show that an agriculture-based rise in GDP is at least twice as effective with regard to poverty reduction as GDP growth rooted in other economic sectors (World Bank, 2007). Poverty is concentrated in rural regions, and the majority of the poor people living there work in smallholder agriculture (IFAD, 2010). Poor people’s opportunities to overcome poverty by their own efforts are limited, and are determined by such factors as gender, ethnicity and social status, among others. Women are usually harder hit than average by rural poverty since they have less access to resources – particularly land, advisory and financial services – and fewer opportunities for sociocultural development (FAO, 2011b).

Poverty-oriented value-chain promotion is aimed particularly at market-viable smallholders and processors, enabling them to overcome existing barriers and to extend their options for action. At the same time it is intended to contribute to poverty reduction by creating paid employment – especially for low-qualified workers – in primary production, processing or trade. From this it can be inferred that value-chain promotion needs to include a variety of actors with different potentials and resources. Because of the central importance of the target groups' resources when it comes to their inclusion in value chains and their resultant chances of being reached by the promotion, in this evaluation the participating actors are differentiated principally based on their livelihoods and the resources at their disposal, and not on the basis of monetary metrics.

The five Rural Worlds introduced by OECD-DAC (OECD, 2006) give a good overview of who can be reached via which pathways within the framework of value-chain promotion, and for which groups other, perhaps complementary, activities must be carried out. These are therefore described in more detail below:

- Rural World 1: Large-scale commercial agricultural producers and enterprises practising highly productive, export-oriented agriculture. These make up only a very small share of rural households and enterprises in developing countries. They have direct access to the financing, risk-management instruments, information and infrastructure that are necessary to be internationally competitive. Furthermore, they often have close links with global value chains. These producers and enterprises are often important employers in rural regions, since they are dependent on cheap labourers and dependable contract farming arrangements⁷ in order to be able to fulfil their own obligations as suppliers. They have the capacities to meet the more stringent international standards and regulations of importing countries or regional and national wholesale purchasers. Because of their political influence, they often succeed in influencing their country's policies in their own interests.
- Rural World 2: Traditional landowners and enterprises. They often belong to national elites but are not internationally

competitive. They frequently have control of large land-holdings which are used for both commercial agriculture and subsistence farming. While the state was still playing an active role in agriculture, they had access to basic services such as financial services. From the 1980s, however, the availability of these decreased drastically following trade liberalisation and the state's withdrawal in the course of structural adjustment programmes. Their access to formal risk management instruments is limited. Because of their traditional orientation, the producers have rather poor access – if any – to important value chains. The expectation is that with better access to improved technologies and infrastructure, particularly in staple food chains, they are capable of becoming competitive.

- Rural World 3: Agricultural subsistence producers, fishers, pastoralists and micro-enterprises whose future is not secured. Their primary aim is food security and their production is destined primarily for their own consumption. Their resources are very limited, as is their access to services that could assist them in deploying their resources more profitably. Because of their limited resources and the resulting vulnerability, they avoid taking risks even if these stand a chance of generating a higher profit. They often live in fragile ecosystems or less favoured regions, and obtain the greater part of their livelihoods from non-agricultural earnings. As a rule, the policies in their countries are rarely aligned to this group's needs. The economic development of Rural Worlds 1 and 2 has a major influence on the employment and income-earning options in Rural World 3. Periods of good harvests can enable small numbers of them to leave the subsistence economy behind. On the basis of their characteristics, the members of this group can be defined as on the brink of market viability. It therefore takes a high level of investment in consulting, financing, establishing business relationships, structuring, etc. to integrate them as producers in value chains.
- Rural World 4: Landless households and micro-enterprises. The households located here are landless and are often headed by a woman. With the exception of their own labour power, they have little access to productive resources. They derive their livelihoods from supplying the better-off

⁷ "Here, agricultural enterprises conclude long-term contracts with organised groups of smallholders. The contractual arrangements usually regulate not only the production and marketing of the farmers' products but also include a comprehensive package of agribusiness services, including the supply of the necessary production factors (seed, fertilisers, crop protection products, and technical equipment), consulting, transport infrastructure and loans. Such contract farming systems are a means of reducing the production and marketing risk for both sides." (BMZ, 2013b: 10, own trans. into English)

households in their communities, either as sharecroppers or farm labourers. Others migrate daily, seasonally, or permanently to economic centres where they can earn a living. However, their low level of education presents an enormous obstacle to escaping from poverty. Just like Rural World 3, Rural World 4 is heavily dependent on the employment and income-earning opportunities that Rural Worlds 1 and 2 can provide. This group can benefit from value-chain promotion mainly thanks to the creation of paid employment.

- Rural World 5: Chronically poor households, many of which are no longer economically active. Most of these households have endured crises in which they lost their means of production. Remittances from relatives, community-based safety nets and state transfers ensure their survival. This world also includes households which have slid into precarious situations as a result of HIV/AIDS. Deep-rooted gender inequalities aggravate the problem. These households are often socially excluded from the community. Monetary transfers and transfers in kind over a longer period of time are existentially important for this group.

This description of the different Rural Worlds underlines how important it is for effective promotion to identify the material, social and cultural resources for the livelihoods of the various actors in order to be able to design appropriate packages of promotion activities. What also emerges from this survey is that Rural World 5, which equates to the “poorest of the poor” or the “ultra poor”, cannot be a direct target group for value-chain promotion. Nevertheless, they can benefit indirectly at least from value-chain promotion if it results in the improved availability of staple foods at low consumer prices. The target groups of value-chain promotion are primarily located in Rural Worlds 3 and 4.

2.1.2 Food security

Recognised criteria for food security are availability (sufficient supply of good quality food), access (physical, social and economic), reliability (availability at all times) and effective utilisation (diversified foods adapted to dietary preferences, and nutritional knowledge) (FAO, 2006). These criteria were

extended in 2012 by the Committee on World Food Security (CFS) to the effect that an environment with adequate sanitary conditions, health services and welfare is also necessary for food security (FAO, 2012).

In the course of promoting agricultural value chains, improved economic access to food is principally addressed by raising incomes (Chege et al., 2015). Where a particular food is promoted for the domestic market, the promotion is also aimed at improving food availability (by increasing production and productivity, reducing post-harvest losses and improving food safety). As a result, more and more higher-quality products are available, not only for producers' own use but also for the market. On the one hand, this is of crucial importance against the backdrop of population growth; on the other hand, rising productivity and food production can lead to lower consumer prices, which can in turn benefit the poorer strata of the population.⁸ Reliability of the food supply is mainly supported within the framework of value-chain promotion by improving markets, infrastructure and storage. A further important aspect that is addressed in food promotion programmes is food safety, i.e. that foods should be harmless to human health (free of aflatoxins, for example).

It is repeatedly pointed out (e.g. FAO, 2013b; FAO, 2014; World Bank, 2014) that interventions focused on production, marketing and processing are not in themselves sufficient to bring about food security. Rather, additional factors such as nutritional knowledge and awareness as well as access to clean drinking water and the availability of affordable health services all play an important part. Therefore the FAO recommends that other sectors dealing with malnutrition, such as education, health and social protection, be included in the promotion strategies to improve food security. Since women have a decisive influence on the nourishment of the family, especially of children (Kennedy und Peters, 1992; FAO, 2013b), the importance of involving women in value-chain promotion and, in this connection, increasing women's incomes, becomes especially clear. Various studies show that higher household income from cash-crop production does not necessarily mean any improvement to the family's living conditions if it is the

⁸ The dilemma in food production that, on the one hand, high producer prices are beneficial to smallholders while, on the other hand, low consumer prices have positive impacts on poverty reduction and food security for poorer strata of the population (Díaz-Bonilla, 2015), is no more readily resolved in value-chain promotion than elsewhere.

men who have control over the income. In fact, there is a danger of heightening the vulnerability of women and children if men monopolise the available means of production (especially land and labour) for themselves and women are left with fewer opportunities to generate income independently (World Bank, 2009).

2.2

Conceptual background to the promotion of value chains

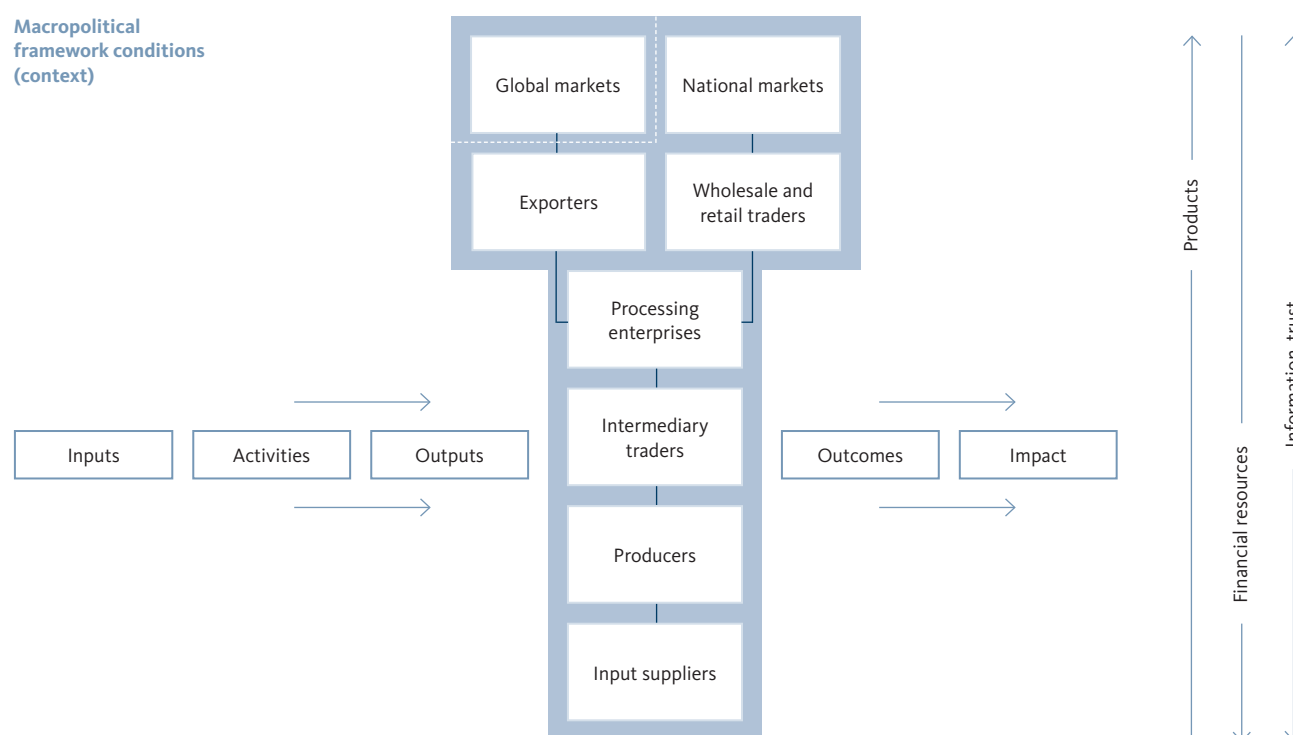
A multitude of concepts and definitions exist for the description of value chains (Barnes, 2004; GTZ, 2007; Jaffee et al., 2010; Kaplinsky and Morris, 2001; Roduner, 2004; Altenburg, 2006). One of the definitions used most frequently by development theorists and practitioners was originated by Kaplinsky and Morris (2001: 4). They define value chains as “the full range of activities which are required to bring a product or service from conception through the different phases of production (involving a combination of physical transformation and the input of various producer services), delivery to final consumers, and final disposal after use”.

As a result of growing integration into the global market and changes in the demand structure in developing countries' national markets with regard to quality standards, punctuality etc., it can be observed that larger processing enterprises and retailers like supermarkets are exerting greater influence on market activity, and trying to meet their demand by means of better-organised value chains (Reardon et al., 2009). This means that today, alongside state and civil society actors,

the private sector is playing an increasingly central role in the development and organisation of agricultural value chains (cf. OECD and WTO, 2013). This applies both to global value chains, which are becoming increasingly important, and to value chains for the domestic market; the latter are constantly gaining in significance thanks to rising purchasing power from a growing middle class, progressive urbanisation, and increasing foreign direct investment by multi-national supermarket chains (ADB, 2012; Reardon et al., 2009).

The central concern of value-chain promotion in developing countries is to improve and upgrade local or regional value creation within the framework of the total value creation of an agricultural product (cf. Cattaneo et al., 2013). Figure 1 (after Jaffee et al., 2010) schematically shows the key actors of a generic form of value chain, effectively laying out the analytical framework of this evaluation. Value is created between one actor and the next and rises vertically. The promotion activities of development cooperation operate on the horizontal plane across the entire chain. The services supplied directly by development cooperation (outputs) are transformed by the various actors of the value chain into outcomes. As part of the process, actors are supported in establishing stable business relationships which depend on mutual trust and a continuous exchange of information. Since the impact of promoting value chains in Germany's partner countries was the evaluation's central focus, the object of evaluation was restricted to value-chain promotion in the partner countries. Global markets were included in the analysis as influential parameters, but not analysed in depth in their own right.

Figure 1: Schematic diagram of a value chain and analytical framework of the evaluation



Source: own diagram after Jaffee et al. (2010)

According to Humphrey and Navas-Alemán (2010), two approaches to the promotion of value chains can be distinguished:

- The “structure-oriented approach”, where the business relationships between the actors participating in a value chain are the central focus of the promotion. This approach sets out to improve inefficient business relationships between producers and current or potential markets, or to build such relationships where none exist. As part of this approach, not only can strategies be developed to improve simple trade relationships for traditional products, but complex trade relationships for high-quality products can also be negotiated. The structure-oriented approach is also geared towards finding points of contact for cooperation with the private sector, e.g. in order to eliminate bottlenecks in marketing and production, unlock latent production potential and foster technological development.
- The “firm-centric approach”, in contrast, places the primary emphasis on supporting business relationships of local firms and producers with selected, mainly transnational firms. These firms shape the value chain – they determine what is produced and how; they specify the product and the production method and thereby influence the barriers to entry. At the same time, these firms are able to shape business relationships with local firms in such a way as to improve the competitiveness and market access of producers, by such means as farmers’ organisations or contract farming. For example, this can be achieved by specifying the production and marketing of products within

At the same time, supporting organisations on the meso level (state and private advisory organisations, financial services providers) are included in the promotion in order to improve the access of value-chain actors to innovations and services and to ensure the sustainability of the promotion.

the framework of contract farming, on the one hand, but also by making available production factors, loans, consulting, and transport infrastructure, on the other. Through the inclusion of supporting organisations or the promotion of horizontal cooperation, these approaches can also have structural effects. The develoPPP.de programme is an example of a firm-centric approach.

Within the value-chain promotion framework, there are also various hybrid forms in which private-sector lead firms are promoted within a structure-oriented approach.

The improvement of value creation, also referred to as “upgrading” along a value chain, can be accomplished in different ways. According to Humphrey & Schmitz (2002), distinctions can be made between: 1) process improvements (organisational improvements, technical improvements and efficiency improvements), 2) product improvements (higher-value products, differentiation), 3) functional improvements (development of skills, accumulation of knowledge) and 4) intersectoral improvements (transition to higher-value industries). Which of these upgrading strategies is most suitable depends on the potentials and barriers of the given value chain. In principle, the corresponding promotion activities always constitute a systemic approach which addresses a value chain’s various stages. The promotion activities thus go beyond purely increasing production and productivity and aspire to bring about structural improvement to the organisation of the market and to the business relationships between the actors involved. For the upgrading strategies mentioned above, which can be subsumed under the heading of “economic improvement”, the main metrics that come into play include productivity growth, gain in value creation, increased profit, and increased exports. Aspects relevant to poverty, such as wage growth, poverty reduction, and growth in informal employment, are only incorporated implicitly, if at all.

2.3

International strategies and experiences of value-chain promotion

Drawing on Section 2.1, in the following section, poverty reduction and food security – as the two main target dimensions of this evaluation – are set in relation to international strategies and experiences in the field of value-chain promotion.

2.3.1 Poverty-oriented value-chain promotion

Approaches to the poverty-oriented promotion of agricultural value chains, in particular, have been developed internationally since the beginning of the 21st century, based on the insight that market liberalisation and economic development represent necessary but not sufficient conditions for poverty reduction in developing countries. Traditional production systems and hence the mass of resource-poor smallholders and processing micro-enterprises – it is observed – were ill-equipped to exploit the growth potentials that had been unleashed by the opening and globalisation of markets (OECD, 2007; UNIDO, 2009).

During this period, multilateral donors especially (FAO, IFAD, UNIDO, World Bank, ILO), but also individual bilateral donors with USAID at the forefront, have endeavoured to increase the participation of poorer actors in modern value chains (Shepherd, 2007; Stamm and von Drachenfels, 2011). In this regard the following considerations are fundamental (Hawkes and Ruel, 2011):

- Promotion of economic growth in the partner countries calls for higher levels of competitiveness in private enterprises (including smallholder farms and processing micro-enterprises); understanding the way that modern markets function is important in order to find out how these enterprises can become more competitive.
- Promotion of competitive value chains in sectors where poor people are involved or tend to be concentrated (agriculture, labour-intensive industries, local crafts and trades) and in which they have a comparative advantage in providing their services, can reduce poverty.

- Poor people need support so that they can participate in this value chain (or change their role in it) and derive a benefit from it.
- Poor people's participation in value chains creates growing prosperity in their (poor) communities and promotes equitable economic growth.

Agriculture is a strong focus of poverty-oriented value-chain promotion by bilateral and multilateral donors, because a majority of the poorer population in partner countries works in agriculture and its upstream and downstream sectors. These people are especially vulnerable to the consequences of any global restructuring in the food sector (e.g. the establishment of higher quality standards and resultant difficulties of market access) (Hawkes and Ruel, 2011). Central to poverty-oriented promotion approaches is the conviction that (resource-) poor smallholders will derive benefits from value-chain promotion if they can secure for themselves a reasonable share of the profits along the stages of the value chain.

In this connection the FAO recommends designing and offering a range of advisory services that is diversified to meet the needs of the target groups, so that resource-poor smallholders are reached (FAO, 2010). Poor people, especially women, balk at the risks entailed by specialisation in agricultural production, for example. Donor organisations indicate that activities should be devised in such a way as to give women opportunities to participate in value chains (AfDB, 2015; FAO, 2011b; World Bank, 2007). Service providers can best reach these groups with innovative packages of agricultural advisory work, supplies of inputs, and/or crop-purchase agreements (Miehlbradt and McVay, 2005). In order to reach smallholders, innovative value-chain financing mechanisms are necessary, as set out in the comprehensive inventory and analysis of the Food Security Task Force (2012). In particular, the willingness of financial institutions to link the approval of loans to agreements with third parties instead of conventional forms of collateral represents one of the most remarkable innovations in the extension of agricultural financing to poorer smallholders.

2.3.2 Food security through value-chain promotion

Particularly since the food crisis of 2007/2008 there have been international efforts to align the promotion of agricultural value chains to the objective of upgrading vulnerable households. Unlike 'traditional' value-chain promotion approaches, which are primarily focused on increasing production and incomes, these approaches take account of the multiple tracks of production, incomes and employment, paying attention to nutritional outcomes, especially for children and mothers. Typical objectives pursued by such approaches (cf. Hawkes and Ruel, 2011) are:

- increasing the year-round supply of accessible (available and affordable) nutritious foods for poor people (and other target groups);
- increasing poor people's demand for and acceptance of nutritious foods;
- improving the coordination among value-chain actors in order to increase the demand for and supply of nutritious foods.

As a reference for interventions to improve human nutrition, the FAO in its publication the "State of Food and Agriculture" (2013a) turns its attention to food supply systems and their diverse linkages as a whole. Even though this systemic view goes beyond individual products, the authors do organise the possible interventions in line with the familiar stages of value chains:

- production to farm gate: measures for intensifying production sustainably; supporting nutrition-promoting agricultural production systems, agricultural practices and crops; promoting stabilising mechanisms for food security (e.g. risk insurance schemes) and of nutrient-conserving on-farm storage; nutritional advice (e.g. school and domestic gardens).
- marketing, processing, (intermediate) storage, trade: promotion of nutrient-conserving processing, packaging, transportation and storage; activities to reduce losses and for food fortification with nutrients and nutritional enhancement of foods.

- consumption: dissemination of nutritional and health information and messages; labelling of products/goods; promoting consumers' nutritional awareness.

In this connection, however, the FAO points out that local interventions should be embedded in a nutrition-promoting environment (e.g. access to clean drinking water and health services) and flanked by political measures at national level to give them a chance to develop lasting effectiveness.

The urgency of the theme has led to various initiatives by donor countries aimed at involving the private sector in combating hunger and poverty, in the hope of reaching a larger number of people through additional know-how and extra financial resources. For example, mention can be made here of the New Vision for Agriculture developed in 2009 by the World Economic Forum, the Grow Africa Initiative initiated in 2011, or the New Alliance for Food Security and Nutrition brought into being by the G8 in 2012. The latter set itself the target of freeing 50 million people from poverty and hunger by 2020. The Alliance is oriented towards the national investment plans of the Comprehensive Africa Agriculture Development Programme (CAADP), which concentrates on promoting African agriculture by involving the private sector, and takes special account of smallholders (including a particular emphasis on risk management strategies). The activities are deliberately designed for the promotion of value chains; private sector involvement primarily takes the form of a cooperation with the Grow Africa Initiative, the objective of which is to bring the partner countries into contact with potential investors from the private sector.

An important actor by virtue of its financial significance and political influence is the Bill and Melinda Gates Foundation (BMGF)⁹, which according to its statutes is committed to enabling people to live healthy and productive lives. In cooperation with the BMZ and private-sector actors, a few BMGF programmes are being carried out under GIZ coordination, such as the African Cashew Initiative, the Competitive African Cotton Initiative or "sustainable cocoa production in West Africa" (*Nachhaltige Kakaowirtschaft in Westafrika*).

2.4

Strategic embedding of value-chain promotion in German development cooperation

Value-chain promotion currently ranks as one of the most important approaches of German development cooperation. Thus, promoting value chains is a major instrument in sectoral economic development, which in turn represents a significant component of German development cooperation. The objectives that value-chain promotion should help to achieve include opening up new sales markets, creating jobs in export sectors, transferring knowledge and technologies, and improving compliance with quality, social and environmental standards. The increasing internationalisation of value chains is seen as an opportunity in this respect (BMZ, 2013d). For that reason, promoting value chains is one of the four priorities of the BMZ's "Aid for Trade Strategy" geared towards improving the productive capacities of partner countries (Kröger and Voionmaa, 2015). Likewise, under the BMZ's "Cross-sectoral Strategy on Poverty Reduction", value-chain promotion is expected to activate economic potential in developing countries and thus contribute to broadscale, lasting, and environmentally sound economic development (BMZ, 2012). Furthermore, the promotion of agricultural value chains is given special significance in the BMZ's current policy on Africa (BMZ, 2014).

Similarly, the German strategy to promote agriculture and rural development in the partner countries of German development cooperation places a particular priority on the improvement of agricultural value chains (BMZ, 2013a). Principal among its target groups are smallholders, the aim being to integrate them into market processes, thereby enabling them to make the transition from subsistence farming into modern smallholder production and intensive agriculture.

Alongside smallholder agriculture, German development cooperation also supports the local processing of agricultural products. The higher value created in rural regions thanks to the promotion is expected to give rise to new jobs. These in turn can cushion the consequences of (desirable) structural change. The importance of initiating activities simultaneously and in coordination from the international to the local level

⁹ <http://www.gatesfoundation.org/>

and with a variety of stakeholders is emphasised in this connection. In order to intensify the impact, it is recommended to pay attention to interfaces between the agricultural sector and other relevant policy sectors – such as development of the private sector, development of financial systems, or environmental protection and resource conservation. The significance of these interfaces is shown, for example, in the implementation of sustainability and human rights standards: development cooperation can advance these along value chains by means of development partnerships, market incentives and consumer information (BMZ, 2012).

The involvement of the private sector in order to promote agricultural value chains through the German approach of “Development Partnerships with the Private Sector” has been acquiring ever greater importance since the mid-1990s. The idea behind this is the endeavour to relieve the BMZ of tasks which, in effective and – by now – globalised markets, can be carried out significantly better and more efficiently by private enterprises¹⁰ (Haberl, 2015). Consequently, in 1996, ‘public-private partnerships’ (PPP) were included for the first time in the cross-sectoral strategy on “Promotion of the Private Sector in the Partner Countries of the BMZ”. The aim of partnerships with enterprises is to mobilise private capital and know-how and to anchor these in socially and environmentally sustainable business practices. In 2009 the PPP programme was reformed and communicated to the general public as “Development Partnerships with the Private Sector”. An essential component of “Development Partnerships with the Private Sector” is the *develoPPP.de* programme. Under this programme the BMZ promotes enterprises making investments in developing or newly industrialising countries by providing financial and in some cases expert support. This is expected to have a number of advantages for the partner countries. For one thing, they can benefit from the inflow of knowledge and capital; for another, jobs and incomes are generated. A comprehensive evaluation of the *develoPPP.de* programme is currently being carried out by DEval.

At the present time, BMZ’s central instrument to promote rural development and food security is the special initiative “One World, No Hunger” (SEWOH). Under its “Green Innovation Centres in the agriculture and food sector”¹¹ component, agricultural value chains in selected partner countries of German development cooperation are being promoted in cooperation with enterprises in the agri-food industry. Food security is also promoted in other components of SEWOH. The promotion of the German Food Partnership (GFP), which was brought into being by BMZ as an instrument to promote agricultural value chains by involving the private sector, came to an end in 2015.

The initiatives cited as examples, which explicitly set out to promote value chains by involving the agroindustry, have attracted very critical attention from civil society (exemplified, for instance, by Forum Umwelt und Entwicklung, 2013; OXFAM, 2014). What critics fear, in particular, is the displacement of poor strata of the population, the intensification of unsustainable agriculture based on large-scale monocultures, the failure to involve farmers’ and civil society organisations, and the fundamental lack of transparency and unduly great influence of the participating corporations (Brot für die Welt, 2015; OXFAM, 2015). This is also reflected in the ongoing discussion about human rights aspects in development cooperation, which will matter more and more in future. Even now, human rights principles form a central orientation framework for development cooperation activities. Accordingly, German state development cooperation has been committed to the implementation of a human rights approach since 2004. In 2011 BMZ enhanced the approach by adding binding standards. This underscores the increasing significance of human rights in German development policy as a guiding principle and a cross-sectoral task¹². Because this theme is of such development-policy relevance, human rights issues are explicitly included in this evaluation. With regard to the poverty-oriented promotion of agricultural value chains, the main rights touched upon are the right to food and the right to a reasonable standard

¹⁰ This trend is also reflected on the international level (e.g. 2002 Monterrey, and the recent Third International Conference on Financing for Development 2015 in Addis Ababa 2015). The OECD’s Development Co-operation Report 2015 even makes the assumption that the private sector will take on the main burden of the Post-2015 Agenda.

¹¹ Green Innovation Centres are going to be established in twelve selected partner countries so far: Benin, Burkina Faso, Cameroon, Ethiopia, Ghana, India, Kenya, Malawi, Mali, Nigeria, Togo, Tunisia and Zambia. Around 80 million euros have been made available for this three-year programme. The Green Innovation Centres are linked with existing programmes of German development cooperation in the countries and operate in collaboration with them.

¹² The concept contains binding standards for the design of state development policy. For example, this comprises the development of country strategies for bilateral development cooperation and the conception and implementation of individual programmes. The “Guidelines on Incorporating Human Rights Standards and Principles, Including Gender, in Programme Proposals for Bilateral German Technical and Financial Cooperation” contain precise specifications for implementing the commitment to review human-rights impacts and risks. Reviewing the human-rights impacts and risks is relevant not only in the implementation of state development cooperation, but also when it comes to evaluating German development policy and its projects and programmes.

of living. In light of the BMZ “Guidelines on Incorporating Human Rights Standards and Principles” (BMZ, 2013c), for the objectives of the present evaluation it is of particular interest how far poor people and other marginalised groups

(e.g. women, landless people) can be reached by value-chain promotion, and how this can contribute – via better availability of (staple) foods – to food security.



3.

METHODOLOGICAL APPROACH

The evaluation of agricultural value chains presents a methodological challenge due to the complexity of the object being evaluated. For one thing, value chains are complex and open socio-economic multi-level systems, which are subject to dynamic sector contexts and market structures. For another, the multi-faceted nature of systemic value-chain promotion heightens the multi-dimensionality of the underlying impact logic. On the one hand, then, an understanding of the underlying socio-economic processes is necessary for a value-chain evaluation; on the other hand, consideration must be given to the entire programme of promotion activities and the underlying mechanisms for change. An appropriate methodology therefore needs to address complex causal interdependencies. For example, poverty reduction at the level of agricultural producers can be initiated by promoting the exporters' association in a partner country so as to integrate local enterprises successfully into international markets. The consequent gains in revenue generated by such promotion can benefit the preceding stages of the value chain, right down to the producers. But at the same time, reciprocal effects of other promotion activities must be taken into account. For producers to secure the greatest possible share of the overall added value, e.g. access to information, technologies, financing or certification, for instance, certain basic prerequisites must be met. Moreover, the context – in the sense of relevant framework conditions – must be borne in mind, e.g. by considering how far the existing communication and transport infrastructure enables the target groups to participate in market activity.

These challenges make it clear why there have been very few evaluations and studies on the impacts of value-chain promotion to date; a disproportionately low number indeed, considering the high level of attention paid to agricultural value-chain promotion in development cooperation. In choosing how to approach this evaluation, therefore, only scant experience could be drawn upon: in past years, a series of cross-sectoral evaluations have shown that the few studies and evaluations dealing with the results of value-chain promotion were either limited by the choice of their methodological approach or were not of high quality in this area. For example, a trans-sectoral review of 30 studies concerning different donors' value-chain promotion programmes, by Humphrey and Navas-Alemán (2010), comes to the conclusion that correlations between

value-chain promotion and development impact are almost entirely derived from isolated pieces of evidence. Other cross-sectoral evaluations arrive at comparable findings (ADB, 2012; Henriksen et al., 2010; Hawkes and Ruel, 2011). One exception is a Systematic Review on the theme of food security, commissioned by the Dutch Foreign Ministry, which identified six evaluations relevant to supply chains and the analysis of which is based on (quantitative) counterfactual methods referring to comparison or control groups (IOB, 2011). All in all, however, counterfactual comparisons offer limited options for the measurement of results for value-chain promotion projects, since it is barely possible in such complex systems to measure individual impacts in isolation and assign them unambiguously to a cause (cf. Hummelbrunner et al., 2015).

3.1 Evaluation design

Given the complex interdependencies, a relatively open methodological approach was chosen in order to allow flexible analysis of the various causal pathways, intervention areas, context factors and interactions within the framework of the promotion. Moreover, in the choice of the methodological approach, care was taken to allow for the use of different data survey and analysis methods to capture the development impact on different target groups along a value chain. To this end, diverse possibilities are offered by theory-based evaluation approaches in which cause-effect connections are derived and reviewed in the form of hypotheses and causal models (Stern et al., 2012; White and Phillips, 2012; White, 2009). One such approach with systematic procedures which satisfy these requirements is known as "realist evaluation"¹³. The realist approach was originally introduced by Pawson and Tilley (1997) and has since been applied and further refined in various forms and variants (on this, cf. Marchal et al., 2012). The principles of a *realist evaluation* are underpinned by the assumption that there is no such thing as an intervention that is equally effective in all situations for all target groups, and that for complex evaluations, great significance always attaches to the context. *Realist evaluation* therefore asks not only whether something works but also, importantly, how and why something is effective, for whom and under what circumstances (Westhorp, 2014).

¹³ An up-to-date overview of the specific characteristics of 'realist evaluation' is found in Westhorp (2014).

The point of departure and the foundation for carrying out the progressive steps in the analysis is the (re-) construction of the programme theory, i.e. the impact logic of the promotion, which is the focus of the evaluation. On this basis, the next step in *realist evaluations* is to develop causal hypotheses which consist of mechanisms for change, context and outcome elements, and are therefore called context-mechanism-outcome (CMO) hypotheses. According to Pawson and Tilley (1997), these mechanisms represent the interplay between the intervention and the behaviour of the target groups which leads to a particular change (outcome) in the given context. Heightened attention is paid here to the interaction between a mechanism for change and the given context¹⁴. Mechanisms cannot be identified solely on the level of the target groups, however, but – in longer causal chains – are to be found on all levels of the causal or intervention logic (Westhorp, 2014). The comprehensive analysis of the mechanisms for change in accordance with the described CMO schema is normally based on a mix of survey methods, the purpose of which is to ensure that the results are robust. Accordingly, data and information should be collected on all three CMO dimensions.

Thus, a *realist evaluation* makes use of the CMO hypotheses to examine how far the inherent assumptions of a project or programme prove accurate. The active mechanisms (M) are the catalysts for a programme's effectiveness and, within a specifically describable context (C), lead to observable changes (O). The discovery and analysis of interdependencies is based on the understanding of a generative or productive causality – it is assumed that the changes hoped for as a result of the intervention depend on actions taken by the actors involved, under certain framework conditions and in accordance with their capacities and available resources (cf. Hummelbrunner et al., 2015; Giel, 2013). It is this aspect which best clarifies the essential difference from counterfactual approaches: (quasi) experimental designs address the line of enquiry, "what would have happened without the intervention?" or, "to what degree

can changes be attributed to the intervention?" and quantify this effect with reference to control or comparison groups. *Realist evaluation*, in contrast, places the focus on the question "how and in what circumstances has something changed as a result of the intervention?" and investigates this type of interaction primarily with reference to case studies.¹⁵

3.2

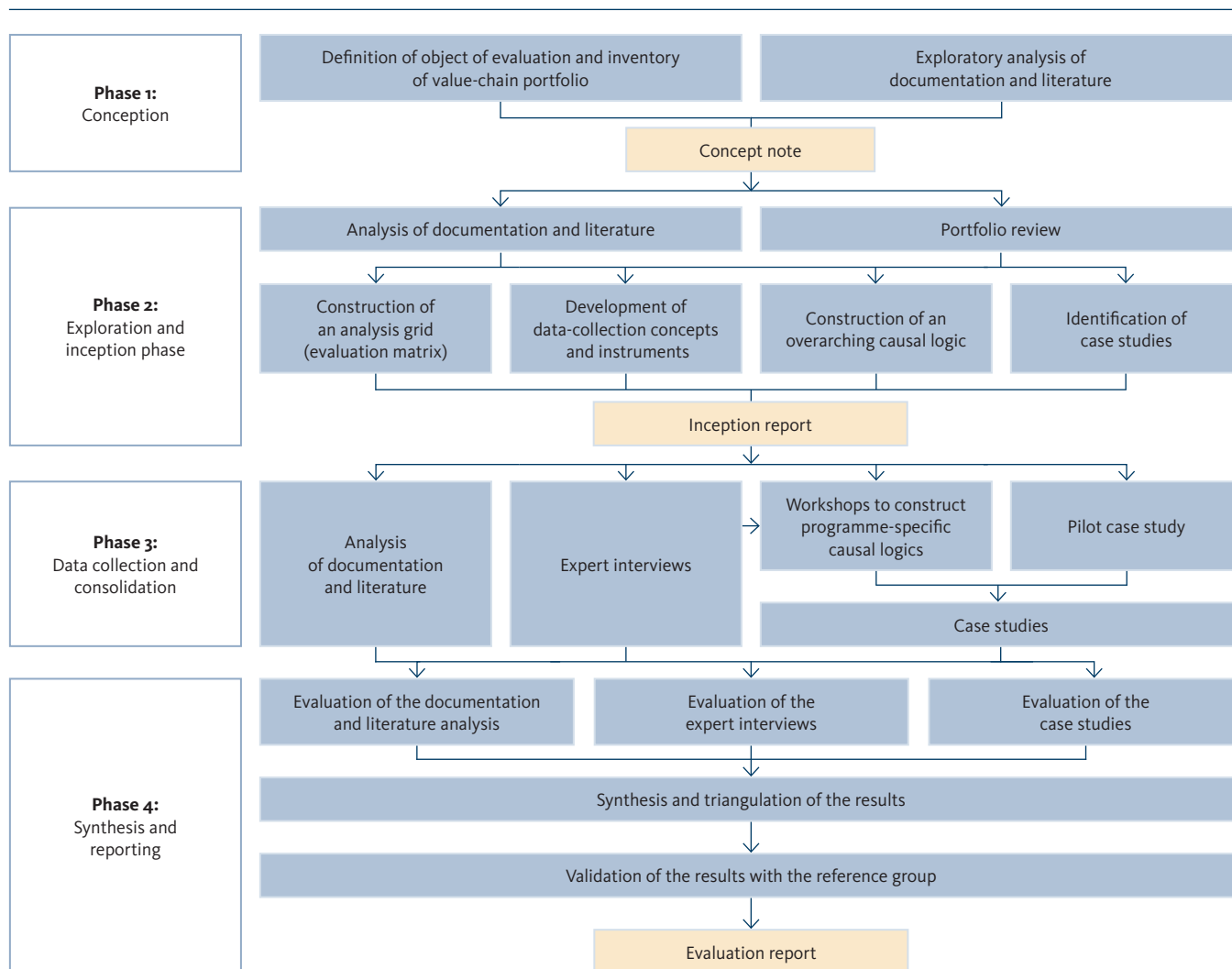
Evaluation phases and survey instruments

The procedure for the evaluation was broken down into four phases: conception, exploration, data collection and consolidation, and synthesis and reporting (see Figure 2).

The conception phase began with clarification of the object of the evaluation. This was done by consulting with the BMZ and the implementing organisations, carrying out a first exploratory analysis of strategy documents, and viewing relevant studies and evaluations. Beyond this, the entire portfolio underwent an initial brief analysis. This indicated the need to carry out a comprehensive portfolio review. On the basis of this portfolio review and an analysis of documentation and literature, the analysis grid for the evaluation (see Annex D) and the survey instruments were developed in the exploration and inception phase. Moreover, on this foundation an overarching impact logic was compiled and suitable case studies identified. This phase concluded with the production of the Inception Report. In the consolidation phase, the additional data-collection methods were brought into use: as well as expert interviews, these consisted of an in-depth analysis of documentation and literature and the completion of the case studies, for which programme-specific impact logics were produced with local participants during in-country workshops. Evaluation of the data and synthesis of the results followed during the synthesis and reporting phase. Individual methods and instruments of data collection are explained in more detail in the following.

¹⁴ Context is defined here as all types of framework conditions that can have a bearing on the impact of an intervention, e.g. geographical, social, economic or political realities.

¹⁵ Although they differ in their primary epistemic interest, counterfactual methods may be used to supplement a realist evaluation, particularly in order to capture development impact. To this end, during the exploratory phase of this evaluation, the feasibility of carrying out quasi-experiments in the course of the case studies was assessed. It was not possible to find suitable baseline, endline or monitoring data for any of the chains being evaluated, however, and there was no plausible way of differentiating the actors into target and comparison groups (on this, cf. also Shadish et al., 2002). For these reasons, extending the realist design with a (quasi-)experimental measurement of results was rejected again.

Figure 2: Evaluation phases and data-collection instruments

3.2.1 Inventory of the value-chain promotion portfolio

Up to the time of the present evaluation, no systematic study of the entire portfolio of agricultural value-chain promotion existed in German development cooperation. Although the value-chain approach is in widespread use in the development cooperation sector of agriculture and rural development, until now the lack of a clear list of distinguishing characteristics of value-chain programmes has prevented them from being readily grouped for analysis. Therefore, the inventory of the entire portfolio of value-chain promotion was the first fundamental phase of work in this evaluation.

This inventory of the portfolio took place in collaboration with all the German implementing organisations that are active in value-chain promotion: GIZ, PTB and sequa in their capacity as the implementing organisations of governmental Technical Cooperation (TC), and KfW and DEG as the implementing organisations of governmental Financial Cooperation (FC). The respective organisations were asked to identify programmes and projects relevant to value chains, and to make the associated programme and project documentation available. The selection criteria were defined in terms of the evaluation time-frame (projects either completed or in progress between 2003 and 2013)

coupled with the clearest possible assignment to the sector of agriculture and rural development. Moreover, the investigated projects and programmes should contain a clear value-chain promotion approach or at least a recognisable value-chain component. In total, in the course of this process 140 projects and programmes with 169 individual promotion phases were identified and, making use of the available programme and project documentation, subjected to an initial brief analysis with regard to some key attributes¹⁶. The brief analysis showed that, given the diversity of the various implementing organisations' programmes and projects, the portfolio was very heterogeneous overall, with sometimes very disparate objective systems and promotion approaches. Moreover, the relevance to value chains was not uniformly obvious in all projects and programmes. This was the background that necessitated the completion of a systematic portfolio review.

3.2.2 Portfolio review

The data basis for the portfolio review comprised not only project documents from the implementing organisations (offers, progress and final reports) but also studies and evaluations carried out in the course of the projects and programmes. This approach allowed a systematic survey of value-chain projects and programmes, taking account of promotion strategies, approaches and activities.

The execution of the portfolio review was broken down into the following work phases: first the projects and programmes were categorised according to the type of approach. The primary distinction made was between firm-centric and structure-oriented approaches (see Section 2.2). Subsequently an analysis grid was developed which examined the projects and programmes in terms of development policy under the headings of core problems, objectives, target groups, activities, and type of product promoted (staple or non-staple food). On the basis of these criteria, the projects and programmes were classified according to the degree of systemic promotion. The next stage was to analyse the underlying promotion strategy with regard

to the associated objective systems, its compatibility with the objectives and strategies of partners, and the achieved impacts. This third phase was accomplished by means of a more in-depth analysis of selected projects and programmes.¹⁷

Following on from that, an overarching impact logic was developed as the basis for the further analytical procedure (see Section 4.4). The basis of this impact logic consisted of various intervention areas which were identified by thematically grouping the promotion activities mentioned in the project and programme documentation. These intervention areas represented the continuing analysis framework for the central causal pathways for achieving the development objectives. The overarching impact logic was presented in the Inception Report of the evaluation, and discussed and validated in the course of a reference group meeting¹⁸.

3.2.3 Analysis of documentation and literature

As the evaluation proceeded, various analyses of documentation and literature took place: in the exploratory phase, the programme and project documentation as well as relevant studies and evaluations were viewed and evaluated as part of the portfolio review. This early phase of the evaluation was initially concerned with building up a comprehensive understanding of socio-economic processes and institutional variants of agricultural value chains as well as the development cooperation promotion activities that had taken place. Building on this, the analysis of documentation and literature served to identify the overarching impact logic, causal pathways and intervention areas (see Section 4.4), and finally to formulate the working hypotheses as the basis for the primary collection of data. The evaluation of the programme and project documentation also laid the foundations for determining the thematic emphasis of the expert interviews. To this end, strategy and concept papers as well as guidance documents and supplementary guidelines were also included in the analysis of documentation during the exploratory phase. During the in-depth phase of the evaluation, further documents were

¹⁶ Title of the measure, duration, regions and countries, type of value chain and promoted product, development-policy markers, overall goals, module goals, indicators, target groups, interventions and budget.

¹⁷ In making this selection, it was endeavoured to take into account the widest possible range of value-chain projects and programmes. The criteria included the regional distribution (e.g. landlocked country versus country with direct access to the sea), the implementation period (longer ago or more recent date) or the type of product promoted (local staple food versus export-oriented products).

¹⁸ The reference group is composed of the bodies with political responsibility for the given object of evaluation (generally the BMZ), those with specialist responsibility in the implementing or promoting organisations, and other relevant stakeholders as the case may be. It plays an important part as regards the professional quality and the use of the results of a DEval evaluation, but the independence of the evaluation is assured at all times. The reference group has an advisory function and supports the evaluation team throughout the process: it is available to supply information and broker contacts, makes necessary data and documents available, and comments on the draft report. The members ensure that all relevant offices in their organisations are informed and involved, whilst preserving the confidentiality of the results from third parties up until publication.

drawn upon in order to take a broader view of the object of evaluation, as well as for data and methodology triangulation in relation to the primary data collected. The analysis of

documentation and literature was evaluated in line with the context-mechanism-outcome configurations of the overarching impact logic and with the evaluation's main lines of inquiry.

Table 1: Relevance of the analysis of documentation and literature for the evaluation's subsequent data-collection methods

Data sources	Expert interviews	Portfolio review	Case studies
Evaluations and studies on value-chain promotion	•	•	
International and national strategies and concepts of value-chain promotion	•	•	•
Project documentation from implementing organisations	•	•	•
Data from the monitoring systems of implementing organisations			•
National statistics on poverty and nutrition			•

3.2.4 Expert interviews

The expert interviews were principally intended to flesh out individual causal pathways and, in particular, to identify and discuss key impact hypotheses and mechanisms for change, which were then to be reviewed empirically in the course of the evaluation. Furthermore, the interviews were expected to help identify the characteristic context conditions in which the given impact hypotheses are true. The working definition of value-chain-promotion experts, in this case, refers to lead contractors or programme and project staff who have not just worked on the implementation level but have also engaged conceptually with the promotion of agricultural value chains. Consultants who had been substantially involved in the planning and conception of projects and programmes on short-term assignments were also included in these interviews. The experts were selected jointly with members of the reference group. As the first step, a list of potential knowledge-holders was compiled for every organisation. The selection of the concrete interview partners was made afterwards with reference to their work experience with value-chain projects and programmes, their regional work focuses, or their inclusion in different types of promotion. The interviews were conducted, working from guidelines, in person-to-person or telephone conversations.

3.2.5 Pilot case study

Bearing in mind the marked heterogeneity of the relevant value-chain actors and the multitude of potentially relevant structures and processes that would need to be examined within the framework of the case studies, the evaluation team decided to start by carrying out a pilot case study. The main objective was to develop appropriate data-collection methods. In order to be able to integrate the collected data afterwards, a develoPPP.de project pursuing a firm-centric approach in one of the chains selected for the case studies was reviewed as a pilot case study. In addition, exploratory interviews were conducted with various members of staff from the given projects and programmes, and the available monitoring data was viewed. Furthermore, because no programme-specific impact logics were available for the projects and programmes selected for the case studies, these first had to be constructed in such a way as to permit theory-based evaluation. Workshops for this purpose were held during the field phase of the pilot case study.

3.2.6 Workshops to construct programme-specific impact logics

The objective of the workshops carried out for all case studies was to (re-) construct the programme and project logic for the promotion of the given value chain. This impact logic was to contain not only all the chains' actors and structures but also all essential assumptions, risks, or alternative explanations that are – or might be – conducive or obstructive to the success of projects and programmes. The workshops held on site with staff of the corresponding implementing organisation followed the logic of a value-chain analysis and referred both to the planning and to the steering and implementation of the respective promotion activities (cf. also GTZ, 2007). For every chain, building on the bottlenecks identified in each case, initially the planned activities, outputs, outcomes and impacts were sketched out and compared with the implementation. Moreover, in line with the principles of a *realist evaluation*, basic information was also gathered on the context of the promotion and on risks which were identifiable or had already occurred. This was intended to facilitate an analysis of context-mechanism-outcome configurations. The empirical review of the causal assumptions derived during this phase was conducted as part of the case studies.

3.2.7 Case studies

Building on the results of the portfolio review, expert interviews and the analysis of documentation and literature, the case studies made it possible to review key hypotheses and mechanisms empirically. In addition, by way of the theoretical underpinning across the overarching and programme-specific impact logics, they permitted a structured comparison between individual cases (on this, cf. Gerring, 2007). The reference criteria for selecting the case studies were their informative value and the transferability of the findings to value-chain projects and programmes in other contexts. Above all, they had to be focused

on systemic promotion of agricultural value chains, with direct poverty reduction and food security specified as explicit objectives and with at least one promotion phase having been completed by the year 2013. The type of product promoted (local staple food versus export products) and the type of promotion (structure-oriented versus firm-centric) were taken into account as further criteria in order to do justice to the breadth of the value-chain portfolio. Furthermore, the aim of carrying out case studies in a variety of countries was to ensure that the context also varied (low-income country versus middle-income country).

In the course of this process, value-chain projects and programmes in Burkina Faso and Ghana were identified as suitable case studies. Since sub-Saharan Africa remains the poorest region of the world and receives over half of bilateral German ODA funding, the selection of two African countries seemed to make sense. Also, the BMZ strategy in the agricultural and rural development sector sets its main priority in Africa. Both countries are partner countries with an agreed priority on the areas of agriculture, rural development and food security. They differ in their development status, however, and have potential for a comparative analysis in this regard. In each of these countries both a staple food and an export-oriented agricultural product was selected. Beyond this, in the framework of the pilot case study, the firm-centric approach in Ghana that was studied was also compared with a develoPPP.de project in Burkina Faso. The case studies analysed in Burkina Faso were thus the rice value chain (staple food) and the cashew kernel value chain (export-oriented product). In Ghana the maize value chain (staple food) and the pineapple value chain (export-oriented product) were chosen as case studies (see Table 2). A detailed presentation of the selected countries and the individual chains is found in Chapter 5.

Table 2: Evaluation case studies

	Case study 1	Case study 2	Case study 3	Case study 4
Product	Rice	Cashew	Maize	Pineapple
Product type	Local staple food	Export-oriented product	Local staple food	Export-oriented product
Country	Burkina Faso	Burkina Faso	Ghana	Ghana
Promotion approach	Structure-oriented approach	Structure-oriented approach + Firm-centric approach (develoPPP.de)	Structure-oriented approach	Structure-oriented approach + Firm-centric approach (develoPPP.de)

Alongside the analysis of case-study-specific documents and monitoring data, the principal data-collection method of the case studies consisted of semi-structured, guideline-based questionnaires. On the one hand these questionnaires were designed to record all promotion activities of the given value-chain projects and programmes, and to locate them appropriately to the intervention areas identified in the portfolio review; on the other hand, the lines of enquiry used concentrated on how these activities were carried out and perceived by the participants, and which changes occurred as time went on. One emphasis was on determining the contextual factors of the given setting. Beyond this, the design and deployment of the questionnaires was geared towards the

different actor groups on the micro, meso and macro level. On the micro level, then, use was made predominantly of (focus) group discussions, normally involving the participation of 10 to 20 persons belonging to the target groups of the programmes (e.g. smallholders or processing employees). Talks on the meso level were mainly held with representatives of associations as well as state or private service providers, whereas on the macro level it was primarily staff from state ministries or the respective promotion projects and programmes who were questioned, mainly in the form of individual or group interviews.¹⁹ An overview of the interviews on the respective levels is found in Table 3.

¹⁹ 'Group interviews', as used here, refers to interviews that were conducted with a number of interview partners but were not intended to take on the character of a discussion.

Table 3: Overview of the interviews carried out in the case studies

		Case study 1	Case study 2	Case study 3	Case study 4
Product		Rice	Cashew	Maize	Pineapple
Micro level	Interviews	6	8	4	11
	Group interviews	–	–	2	6
	Focus group discussions	21	15	3	3
Meso level	Interviews	7	7	10	22
	Group interviews	–	1	3	4
	Focus group discussions	1	–	2	1
Macro level	Interviews	5	6	10	13
	Group interviews	–	1	2	1
	Focus group discussions	–	–	–	–
Total		40	38	36	61

The overall procedure for data collection in the case studies was designed to take in all the relevant actors of the given chain, as far as possible. The intention was to make it possible to compare and contrast the perspectives of different actors within a value chain and their perceptions, views and statements. In the synthesis phase of the evaluation, the collected data was initially coded and processed for each case study across each of the intervention areas and in accordance with the differentiation by context, mechanisms, and observed

changes. Subsequently these case-study-specific results were cross-referenced with each other and structured according to shared aspects. This synthesis was finally compared with the results from the portfolio review, the analysis of documentation and literature, and the expert interviews. By this procedure, the given context factors, mechanisms and observable changes, and hence all aspects of the overarching impact logic, could be reviewed empirically with reference to the various data sources.



4.

PORTFOLIO REVIEW

4.1

Background and objectives of the portfolio review

The portfolio of agricultural value-chain promotion is based on diverse strategies, initiatives and activities by different German FC and TC actors. Within development cooperation programmes and projects, the promotion of value chains takes place either as a component, or as a cross-sectoral approach, or in the form of PPP programmes. These types of promotion are chiefly embedded in the sectors of 'sustainable economic development' or 'agriculture and rural development'. The concrete manifestations of these promotion approaches are highly diverse, which adds to the difficulty of assessing the entire portfolio, and hence the object of this evaluation, systematically. The portfolio review was therefore dedicated to the following objectives:

- 1) Establishing an overview and systematisation of the entire portfolio, taking account of the promotion strategies, approaches and activities;
- 2) Constructing an overarching impact logic on the basis of individual intervention areas;
- 3) Analysing the results, extent to which objectives were achieved, and impacts of the projects and programmes selected from the entire portfolio;
- 4) Contextualising and assessing the relevance of value-chain promotion with reference to the strategies and initiatives of German development cooperation and its partner organisations.

Given these objectives, the portfolio review provides the first comprehensive and systematic assessment of German value-chain promotion in the sector of agriculture and rural development since the start of major promotion activities around the year 2003. In addition, the review has an organising and theory-building function, which laid the foundations of the further evaluation. The discussion in this chapter is addressed to Objectives 1 and 2 as listed above. The subsequent analysis of results, extent of achievement of objectives and impacts (Objective 3) as well as the contextualisation and assessment of relevance (Objective 4) were fed directly into the results chapters of this evaluation (see Chapters 6 and 7).

4.2

The German value-chain portfolio

Since the first decade of the new millennium, value-chain promotion has been systematically included in German development-policy strategies. In the early years, projects and programmes relevant to value chains were operated principally under the aspect of sustainable economic development. This is reflected in the high proportion of value-chain projects and programmes which were classified as trade-related *Aid for Trade* programmes.²⁰ With growing experience, value-chain promotion also gained ground as an acknowledged approach in the field of agriculture and rural development and in natural resources management. As the lead implementing organisation in this sector, GIZ in particular has dealt conceptually with the promotion of value chains and published the *ValueLinks* manual in 2007 (GTZ, 2007).

Infobox 1: The *ValueLinks* manual

The manual offers a frame of reference for the promotion of business development from a value-chain perspective. It is addressed both to development projects and to public institutions. Through the training of *ValueLinks* trainers and the delivery of *ValueLinks* seminars and workshops, the manual has become widely disseminated internationally. In the meantime, GIZ has been working on *ValueLinks* 2.0, which incorporates the experiences and developments of recent years and pays greater attention to additional aspects like environmental sustainability, gender and nutrition.

In consultation with the BMZ and the implementing organisations, 140 completed or ongoing projects and programmes from the entire portfolio, involving a total of 169 promotion phases, were included in the evaluation. Essentially, the present promotion portfolio is relatively broad in scope, and operates on a range of levels and through diverse individual support activities to address higher-order development objectives like poverty reduction, food security,

²⁰ At the 2005 Conference of the World Trade Organization in Hong Kong, *Aid for Trade* was introduced as a concept that aimed to support developing countries in the area of export promotion and further integration into the world trade system. Since then, projects and programmes that contribute to these objectives have been designated by means of "trade markers", which means they can be counted as ODA flows (ODA = official development assistance). In 2015, DEval published an analysis of the German strategy for implementing Germany's Aid for Trade policy (Kröger and Voionmaa, 2015).

Table 4: Regional distribution of value-chain projects and programmes, by implementing organisation

Region	GIZ	KfW	sequa	DEG	Total no. of projects and programmes in the region
Africa (transnational)	6	3	0	1	10
North Africa	4	0	1	0	5
West Africa	14	3	4	2	23
Central Africa	2	0	0	0	2
East Africa	7	1	2	1	11
Southern Africa	6	0	0	1	7
North and Central America	7	0	2	3	12
South America	9	1	1	2	13
South/Central Asia	22	1	0	1	24
East Asia	13	0	4	7	24
Europe	5	1	1	0	7
Regional programmes	1	1	0	0	2
Number of projects	96	11	15	18	140

environmental protection and resource conservation, health, and gender equality. In regional terms, the priorities are set in Central and East Asia and in West Africa (see Table 4).

It emerged from the analysis of the portfolio that many projects and programmes exhibited very limited systemic relevance to value chains, or none at all. Therefore a categorisation of projects and programmes was undertaken according to development-policy core problems, objectives, target groups, activities, and products chosen for promotion.²¹ The results make it possible to differentiate between 1) systemic value chain projects and programmes (38 %), 2) projects and programmes with systemic value-chain components (9 %), 3) projects and programmes with a minimal systemic value-chain reference (28 %) and 4) those with no systemic value-chain reference (25 %). Systemic promotion is understood here to

refer to projects and programmes in which promotion is addressed to several stages of the value chain and which ultimately represent an interplay of various activities with different actors on a variety of levels. In contrast, projects and programmes with individual market-oriented promotion activities (such as a sole focus on promoting access to high-yielding varieties) were not deemed to be systemic value-chain projects and programmes. Because of the research interest of this evaluation, the remainder of the analysis was applied exclusively to projects and programmes in Categories 1 and 2. On the basis of a criteria-based selection (see Section 3.2.2), a detailed analysis of the underlying promotion strategies was carried out (see Annex B) for a total of 15 projects and programmes in these categories (of which five were developPPP.de programmes). The categorisation of the projects and programmes is set out in Table 5.

²¹ Since the individual promotion phases within a multi-year programme differed with reference to the criteria, this analysis was carried out on the level of the individual promotion phases (N=169) and not of the projects and programmes (N=140).

Table 5: Number of programmes/promotion phases by promotion category and organisation

Category	develoPPP.de					%
	GIZ	KfW	GIZ	DEG	sequa	
1 Systemic value-chain projects and programmes	38	3	18	5	1	38
2 Projects and programmes with systemic value-chain components	10	–	1	2	1	9
3 Projects and programmes with limited systemic reference	22	4	8	8	5	28
4 Projects and programmes without systemic value-chain reference	7	10	15	3	8	25
Total	77	17	42	18	15	100

In the categories of systemic value-chain projects and programmes and those with systemic value-chain components, 48 promotion phases of governmental TC were identified. These include some regional programmes. A total of 34 (71%) of the 48 GIZ projects and programmes in Categories 1 and 2 are characterised by some form of governmental FC participation. The degree of participation ranges from loose statements of intent on cooperation, through provision of reciprocal support in particular areas, to integrated joint programmes. On the part of FC, three KfW promotion phases were classified as systemic; in all cases these were programmes run jointly with governmental TC.²² In addition, 28 develoPPP.de projects and programmes were assigned to the first two categories. This means that overall, 47 per cent of all the promotion phases were categorised as systemic value-chain promotion or promotion with systemic value-chain components.

In the analysis of the various promotion approaches it became clear that no common portfolio-wide definition of value-chain promotion existed. Apart from reports from the GIZ projects and programmes, which occasionally make reference to the *ValueLinks* manual (GTZ, 2007), the form of reporting on the project and programme level only rarely contains value-chain-specific information. Analysis by the type of

implementation, however, confirmed that a particular distinction can be discerned between the two previously mentioned overarching promotion approaches (see Section 2.2): first, broadly framed, structure-oriented approaches devoted to comprehensive support of various value-chain actors on different levels, and second, firm-centric approaches which concentrate on lead private-sector actors and their immediate business environment. The chosen type of promotion entails a variety of consequences, from the choice of target groups, through the construction of the objectives system and/or the impact logic, to the choice of chains. Furthermore, hybrid and cooperative forms of these types of promotion approaches are common. For instance, in some cases structure-oriented approaches also contain firm-centric components, usually in the form of integrated PPP activities.

Structure-oriented projects and programmes tend to be implemented under the coordination of GIZ²³, including joint programmes with the *Centrum für internationale Migration und Entwicklung* (CIM) and the PTB²⁴. Furthermore, the bulk of the programmes are cooperation projects with KfW, which is then commissioned to provide complementary FC components. Depending on the type of projects and programmes, there can be additional involvement from other donor organisations,

²² The forms of cooperation between TC and FC differ greatly, ranging from loose declarations of intent and provision of mutual support in certain areas to fully integrated joint programmes. For the majority of TC projects and programmes with FC involvement, the latter contributes to a sub-component of the promotion, e.g. in the form of support outputs. In contrast the jointly implemented programmes were also assessed as systemic programmes on the part of KfW, i.e. they were double-counted because they were ascribed both to GIZ and to KfW.

²³ Or, for the projects and programmes analysed in the evaluation period, by their predecessor organisations German Technical Cooperation (GTZ), at times supported by the German Development Service (DED) and/or Capacity Building International (InWEnt).

²⁴ In addition to PTB's involvement within the framework of joint programmes, particular mention should be made of the CALIDENA instrument as an intervention relevant to value chains. The so-called CALIDENA workshops are a specific approach for improving the quality infrastructure and establishing networks. Since the *Centrum für Evaluation* (CEval) carried out its own evaluation of the instrument in 2015 (see Bähge, 2015), it is not considered separately as part of this evaluation.

private enterprises or foundations. Structure-oriented projects and programmes promote both the actors in the chain on the micro level as well as the necessary support structures on the meso level. Moreover, they support state institutions on the macro level in the shaping of beneficial framework conditions. KfW's promotion activities concentrate especially on the institutional and supporting (business) environment of the value-chain actors as well as on the improvement of agricultural productivity and the strengthening of farmers' organisations: they include the introduction of refinancing mechanisms, the promotion of lending, and the financing of infrastructure measures. Infrastructure measures such as the installation of irrigation perimeters are usually accompanied by promotion activities on production and marketing.

The smaller scale developPPP.de projects, in particular, tend to follow the firm-centric approach. These are implemented by GIZ, DEG and sequea and concentrate primarily on the establishment of specific supply chains. To this end, the projects and programmes work mainly on developing the capacity of producers and small processors. Key objectives are usually to increase production and productivity and to raise quality.

Moreover, differences between the two promotion approaches can also be noted with regard to the respective products: the supported chains in structure-oriented projects and programmes encompass the entire spectrum from staple foods (e.g. rice and maize) through to all subcategories of higher-value and specialised (export) products, such as traditional export products (e.g. cocoa, coffee), animal products (e.g. goats, honey) and horticultural products (e.g. fruits, spices). For the firm-centric approaches with European partners, the emphasis is on the promotion of high-value, export-oriented agricultural products. Staple foods are not specifically promoted in the context of PPP activities.

The criteria for selection of the value chains are rarely described in the available programme and project documentation, and thus not readily verifiable. Also, there is seldom any indication that systematic value-chain analyses or context analyses have been carried out in advance of projects and programmes.²⁵

4.3

Target groups and (development) objectives

Value-chain promotion takes place in the form of cooperation and support of different actors on the micro, meso and macro levels. The target groups are found predominantly on the micro level, where they are concentrated in the primary stages of the value chain: in the area of production, trade and transportation, and processing. The vast majority of projects and programmes address small agricultural producers and smaller or micro enterprises as well as employees of medium-sized (export) companies as target groups. This corresponds to Rural Worlds three and four. In the selection of target groups, poverty aspects play a prominent role, since the groups mentioned above are frequently described in project documentation as affected or threatened by poverty. But another focus of promotion is on culturally, socially or politically disadvantaged groups, e.g. young people, veterans or members of lower castes. In many projects and programmes, women are explicitly mentioned as a target group. The main rationale for this focus is rooted in their structural disadvantage since women are frequently active on the lower stages of a value chain and, that being the case, only receive a tiny share of the added value.

Aside from development-policy aspects, economic aspects – such as market orientation – also play a part in the selection of target groups. For instance, when it comes to export-oriented value chains, smallholders whose products were already represented on local markets before the promotion frequently receive support. Particularly under firm-centric approaches, the target groups are largely market-oriented, organised smallholders, who are already familiar with the production of a particular export product.

Overall, most projects and programmes concentrate on target groups in rural regions. In this context, the focus of German development cooperation is often set on especially poor regions in the partner countries. For export-oriented chains, however, the target groups can also be found in semi-urban zones of major commercial centres, where they find employment in processing or in export companies.

²⁵ The stated objective of such analyses is to examine target groups and possible impacts on other groups, e.g. in respect of possible displacement effects. The results of such analyses facilitate a specific planning of activities in alignment with identified weaknesses and leverage points, with due consideration of broader impacts.

Both TC and FC activities establish relationships with the target groups mainly indirectly, via actors on the meso level, the enabling environment. As well as involving private-sector actors, TC projects and programmes often work through public structures, particularly via the state advisory services. In contrast the promotion in FC, almost without exception, operates via private-sector actors, e.g. through financial institutions which are involved in refinancing mechanisms or in lending.

The broad promotion portfolio and the various indirect and direct target groups of value-chain projects and programmes are also reflected in the articulated objectives, in that (development-policy) core problems are addressed on different levels. Whereas the objectives of structure-oriented projects and programmes are usually formulated in development-policy terms and relate to the development of a region or sector in the partner country, the objectives of firm-centric projects and programmes focus more on developing a specific value chain and supporting its actors. In this regard, however, it must also be pointed out that structure-oriented approaches are almost always integrated into more extensive programmes and projects which are conceptually geared towards broadscale impact extending beyond individual chains.

The objectives and objective indicators of structure-oriented projects and programmes frequently point to a direct link to poverty reduction. This was either stated in concrete terms in the documents or made clear with reference to development-policy markers.²⁶ For firm-centric approaches, project objectives are predominantly formulated in technical terms and relate mostly to the output level ("a certified sustainable supply chain is established").

Staple-food value chains are expected to bring about contributions to food security – which comprises the dimensions of availability, access and continuity – via the interplay of increased production volumes, higher employment and rising incomes. For export-oriented value chains, usually a link to food security can only be derived indirectly, via the boost to incomes and employment.

In the project documentation from develoPPP.de programmes, development objectives like food security and the creation of income and employment are defined either as aggregated impact or as a programme objective. After closer consideration of the develoPPP.de programmes categorised as systemic (Category 1+2), the main interest of the firms is predominantly (i.e. in 66 % of cases) in opening up new sources of supply and in establishing stable supply relationships – in order to guarantee the necessary quantities and consistently high product quality. This motivation is explicable in terms of the rising global demand for the given product (provided that the quality is right) and the expected profitability. Another important factor mentioned is the enhancement of a firm's image as one which does business in a socially and environmentally responsible manner (29 %). Only a few projects and programmes (16 %) explicitly mention increasing turnover or accessing new markets. Heightening an international competitive advantage is mentioned less frequently still – even though it can be assumed that this is a factor of no small importance for all projects and programmes. For other projects and programmes (12 %), creating a competitive advantage, preferably by means of high product quality or low-cost purchasing, is a priority. In individual cases, mention is also made of the pilot character of the project or programme for introducing new products and services or for obtaining new information on country- or region-specific customer needs and market structures, and the possibility of subsequent entry to the market. Within the scope of the firm-centric develoPPP.de programmes assessed, it becomes clear that entrepreneurial objectives are the foremost priority, and these vary in their compatibility with development objectives.

Alongside poverty reduction and food security, gender equality is a further target dimension. This crops up mainly as a trans-sectoral objective in the reporting formats of projects and programmes. Similarly, the development objective of environmental sustainability is rarely stated as an explicit objective but rather as a trans-sectoral theme. Exceptions are value-chain projects and programmes in the field of environmental protection and resource conservation. These were not considered in detail in the scope of this

²⁶ The programme proposals of GIZ contained projects and programmes with the following development-policy markers: direct poverty reduction (SHA = self-help-oriented poverty reduction: 19 per cent, SUA = other forms of direct poverty reduction: 3 per cent) and comprehensive poverty reduction (MSA = comprehensive poverty reduction on the macro or sector level: 53 per cent). In addition, there are projects and programmes with a general development-policy orientation (EPA) which have no direct or comprehensive poverty orientation (2 per cent).

evaluation, however. In the (re-)construction of the impact logic, explicit causal pathways could therefore only be traced in a limited way for these two specified objectives (see also Figure 3 in the following chapter). For that reason, gender equality and environmental sustainability were likewise included as trans-sectoral themes in this evaluation.

4.4

Overarching impact logic

In summary, contributions towards the development objectives of poverty reduction and food security are intended to be accomplished primarily by boosting or generating 1) incomes and 2) paid employment for the actors of the value chain. At the same time, existing food insecurity is to be reduced, continuity of food security is to be established, and the existing standard of living is to be maintained or increased (see Figure 3). In the broader sense, contributions towards food security also arise by means of improving the availability of (staple) foods, thus benefiting the broader population beyond the context of a specific value chain. In the existing portfolio this is happening by means of activities, processes and outputs directed towards three further key outcome areas: 3) improved quality management, 4) improved marketing²⁷ and 5) increased production and productivity. The basic framework for providing direct services (outputs) consists of systematic processes within a value chain (micro level) and in its environment (meso and macro levels). The cooperation between actors on the macro and meso levels gives rise to the direct (support) outputs that are intended to be conducive to the processes within the value chain. In the course of the portfolio review, five key output areas could be identified:

O1: Target groups and their advisers are trained in operational management, financial and business planning;

O2: Functional market information systems and infrastructure are in place;

O3: Functioning organisations (groups, unions, associations) and cooperations (value-chain committees) are established;

O4: Functioning advisory and financial services are in place; the supply of inputs is improved;

O5: Functioning certification systems and bodies are in place; quality standards are introduced.

By making use of these outputs, the actors on the micro level can achieve an increase in value creation and their individual share of it. Value creation is increased by activating and amplifying the respective mechanisms for change. The mechanisms take effect on the basis of the interplay of concrete knowledge transfer, acquired abilities and changed attitudes, and are the central focus of the later analysis (see Chapter 6). The activation or amplification of the mechanisms contributes to the short and medium-term impacts of the activities against the backdrop of a given context. In parallel with the output areas, the following mechanisms for change were differentiated:

M1: Entrepreneurial thinking and action

M2: Market knowledge and utilisation

M3: Organisation and cooperation

M4: Knowledge about and use of means of production and services

M5: Quality awareness

All of these outputs and mechanisms are addressed here by a multitude of promotion activities. The diverse individual interventions from the value-chain projects and programmes being evaluated were therefore assigned to five overall intervention areas that could be identified during the analysis of the entire portfolio:

IA1: Private sector development

IA2: Market development

IA3: Organisational development, institutional development, business relationships

²⁷ The principal aspects considered under marketing were the facets of market access, the pathways to the valorisation of product and process innovations, and the sale of the promoted products.

IA4: Access to information, technologies, advisory and financial services

IA5: Quality standards and certification

By virtue of their structuring yet at the same time systemic character, the intervention areas constitute distinct aspects for investigation in relation to the overarching impact logic and, hence, the analytical framework of this evaluation.

Nevertheless, they are not closed or discrete segments of the system. Individual support activities can be ascribed (at least in part) to several intervention areas or associated with activities from other intervention areas. But all intervention areas are to be viewed as systemically connected, which in itself points to the necessity of systemic implementation of strategies for improving value creation. Whereas the identification of intervention areas was undertaken with reference to the entire portfolio of German value-chain promotion (breadth), further analysis of it was conducted within the framework of the case studies (depth) in particular. There follows a detailed breakdown of the thematic focuses of the intervention areas:

Intervention Area 1: Development of the private sector

The development of the private sector is a central element of value-chain promotion. Poor business administration skills and management capacities are the central bottlenecks in this intervention area. With regard to the value chain, these challenges exist particularly on the level of producers and processors. Activities which relate to the development of entrepreneurship, particularly entrepreneurial skills and capacities on the enterprise level, mainly address the promotion of entrepreneurial thinking and action as the central mechanism. Along with concrete activities to promote business plans, book-keeping and financial planning as part of different training formats, e.g. through farmer business schools, the activities also promote organisational development of micro, small and medium-sized enterprises (MSMEs) as well as business relationships, which are indicative of specific systemic interlinkages with Intervention Area 3. A further support service in this area is the promotion of business start-ups (e.g. in the case of Sierra Leone and Nepal). Intermediate objectives in this intervention area include the establishment of business relationships, take-up of advisory

and financial services, improved quality management, improved marketing and increased productivity, all of which are intended to contribute to higher incomes and improved employment.

Intervention Area 2: Market development

The intervention area of market development revolves around market access, market information and market information systems, as well as the (physical) transportation and market infrastructure. The central challenges include inadequate market information systems, information asymmetries and unsatisfactory physical infrastructure. German development cooperation addresses both the supply and the demand side with a diversity of activities. On the supply side of the value chain, a recurrent activity in the portfolio is the inclusion of actors in national and international trade fairs and other platforms which facilitate access to and the exchange of market information. Another aspect of this is to connect target groups to innovative market information systems, e.g. to new and sometimes mobile technologies from agricultural advisory service providers. Alongside these TC activities, FC components also contribute to the establishment of physical transportation and communications infrastructure. Additionally, in the field of development partnerships with the private sector, partnerships to introduce new technologies are being implemented. On the demand side, activities concerning foods for the domestic market, in particular, are addressed to the consumer level, e.g. via public information and advertising campaigns. The central mechanism in this intervention area is the promotion of knowledge and information exchange. On the supply side, the corresponding activities are aimed at the knowledge of value-chain actors about demand-oriented product quantities, qualities and prices, delivery times, etc. In this way they contribute particularly on the level of producers and processors to the demand-led marketing of agricultural products. The objective to be achieved via the promotion strategy of marketing is to boost incomes. On the demand side, the mechanism for change results in consumers gaining knowledge about product quality and food safety, with the objective of improving food security.

Intervention Area 3: Organisational development, institutional development, business relationships

The economic principle of value chains is based on the exchange of information, goods and services etc. between the actors in a value chain. Good actor relationships are seen within the German value-chain promotion portfolio as the foundation stone for sustainable economic development, and are the central focus of a range of promotion activities. Innovative approaches encompass the establishment of steering committees along the value chain, the initiation of stakeholder forums and platforms for exchange (e.g. round-tables) and support for public-private dialogue. Particularly in the course of PPP activities, special importance attaches to the establishment of links between MSMEs and larger, sometimes international firms, to the conclusion of contracts, and to contract farming. The roles and existing forms of cooperation used in PPP activities are very diverse in the present portfolio, however, and range from low-level forms of integration, to the involvement of develoPPP.de programmes, through to integrated PPPs. A prerequisite for the establishment of stable business relationships is considered to be a high degree of organisation among value-chain actors. Additional activities therefore relate to supporting the institutional development of cooperatives, chambers, (umbrella) associations and the (sectoral) strategy development of the development partner. Against this backdrop, the promotion of organisation and cooperation forms the key mechanism of Intervention Area 3. Organisational development refers here primarily to increasing private sector capacities and negotiation power. The initiation and consolidation of cooperation among actors themselves serves the purpose of horizontal and vertical integration and the implementation of various value-enhancing strategies, and hence increased value creation. These processes are usually supported by strengthening the institutional context. The objectives of the activities include not only the improvement of quality management and marketing but also the raising of productivity and production. Contributions to poverty reduction and food security arise from the increases in incomes and employment.

Intervention Area 4: Access to information, technologies, advisory and financial services

Insufficient knowledge and lack of access to (new) technologies and process innovations limit the adaptability and competitiveness of value-chain actors. Yet information and technologies represent an essential foundation for successful participation in (international) value chains. Access to these basics depends mainly on available and appropriate advisory and financial services. In this connection, any effective value-chain promotion must be addressed to actors on the micro as well as the meso level, and to exchange between the actors. For example, actors on the micro level can only use adapted financial services successfully if the divergent needs and economic-viability issues between the supply and the demand side are clarified, and if market information is exchanged reciprocally as a basis for embarking on business relationships. The promotion in this area supports the various actors by means of activities like the production of training materials and concepts for introducing new technologies and process innovations, the piloting of innovative technologies and processes, or the establishment of quality infrastructure. It can equally take the form of financial promotion of research and development establishments or refinancing institutions; for instance, the establishment of funds for purposes relevant to the value chain.

The mechanisms thereby addressed are multi-layered: they range from pure knowledge aspects concerning technologies, product and process innovations, through to the readiness to valorise new knowledge and new technologies by taking advantage of advisory and financial services to act in one's own economic interests. The objective here, in addition to boosting production and productivity, is to improve the quality of the products. By boosting the production of high-quality products, direct impacts on food security can be expected.

Intervention Area 5: Quality standards and certification

Meeting and complying with quality, labour and environmental standards is an essential prerequisite for participation in (international) value chains. Now more than ever, exporters, importers, international wholesale and supermarket chains are demanding compliance with and verifiability of standards. From the consumers' point of view, product quality and food

safety are playing an ever greater role. A supporting pillar for compliance with and verifiability of these criteria is certification. Particularly for smaller enterprises at the bottom of a value chain, however, the costs of complying with standards and obtaining certification are high. Low product quality, high post-harvest losses and sub-standard food safety present major challenges. For actors with little investment capital or little capacity to adapt, standards and compliance pose significant barriers to entry.

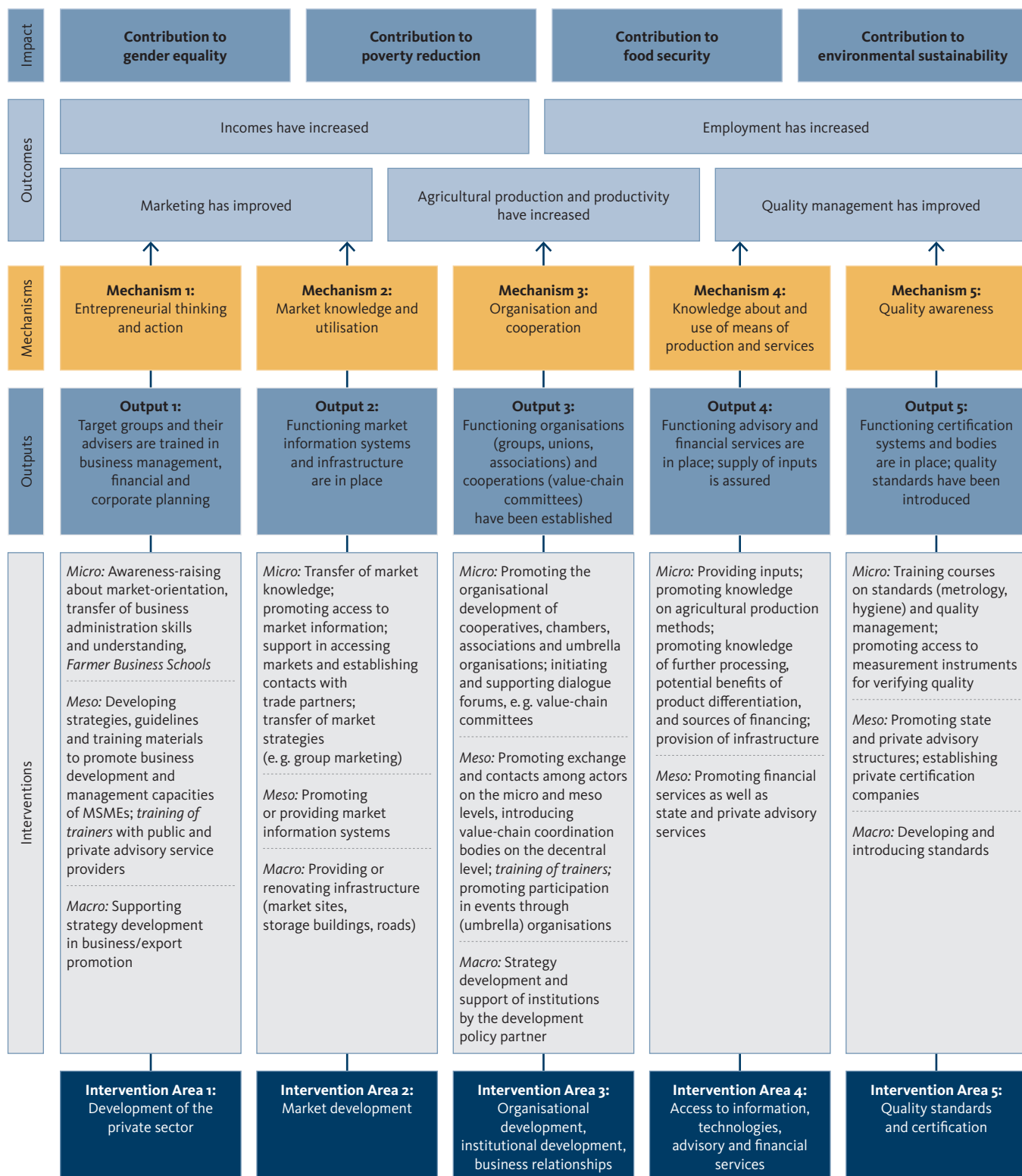
German development cooperation tackles these challenges by means of diverse support services for the introduction and implementation of standards and certification: by means of training courses and financing, by establishing and supporting service provision – especially by certification bodies and advisory services – and specific service providers, e.g. in the field of food safety and hygiene standards. The key mechanism on the actor level is based on knowledge and information about standards and certification, and about access to services (advisory and financing) which facilitate entry to and sustained participation in the value chain. Among the direct impacts are the improvement of the quality infrastructure and hence also the quality of products, which can be valorised by means of improved marketing. Beyond this, labour standards should contribute to improving working conditions (occupational safety,

employment contracts, health insurance etc.), the quality of work and labour output. Moreover, the introduction of and compliance with environmental standards is expected to produce positive impacts in the sphere of environmental sustainability; for example, by minimising resource consumption, reducing the discharge of pollutants, lowering CO₂ emissions and improving waste and wastewater management.

Overall analysis of Intervention Areas 1–5

As a complement to the activities within the individual intervention areas, many projects and programmes carry out supplementary work on the political level – mainly through the respective partner ministries – on improving the institutional framework conditions (macro level). One objective among others is to strengthen an enabling and supporting environment which is conducive to the development of entrepreneurial processes in the value chain. The activities include policy and strategy development as well as support services for implementation by the partners. In keeping with the structure-oriented approach of German development cooperation, the main interest here is in addressing issues at the meso and micro levels. In some cases, the stated activities on the macro level are associated with developing the capacities of state organisational bodies and their employees.

Figure 3: Overarching impact logic





5.

CASE STUDIES

The following chapter presents the four case studies which form the centrepiece of the evaluation. Their purpose was primarily to verify the hypotheses and mechanisms. To give a better understanding of how the value-chain promotion fits into the respective partner country's policies, each set of case studies is preceded by a brief country survey. For each value chain, this will be followed by a description of the product and the given constellation of actors²⁸ before proceeding to introduce the value-chain project or programme and its promotion activities. Each case study concludes with an evaluation of the promotion. The presentation of the promotion activities is structured in accordance with discrete thematic areas which are essentially guided by the intervention areas identified from the overarching impact logic (see Section 4.4). The individual intervention areas and their mechanisms for change are discussed afterwards in Chapter 6.

5.1

Country survey: Burkina Faso

The West African country of Burkina Faso, which means the "country of honourable people", is among the poorest countries in the world. In the 2014 Human Development Index²⁹ it is ranked in position 181 (out of 187 countries assessed), in the "Low Human Development" category. Between 2000 and 2014 the country registered growth in per-capita gross domestic product from 227 to 713 US dollars (Germany 2014: 47,627 US dollars) with an average annual growth rate of 5.9 per cent (World Bank, 2015b). With a total population of 17.6 million and a population density of 64 inhabitants per km² its annual population growth stood at 2.9 per cent in 2014 (World Bank, 2015b).

Agriculture and its downstream sectors offer the greatest development potential for the country's economy. Around 80 per cent of the population work in agriculture; this sector is responsible for approximately 40 per cent of economic output. At the same time, the proportion of chronically poor people in rural areas is four times as high as in urban areas (World Bank,

2013). The majority of agriculture consists of rain-fed farming and is thus heavily weather-dependent. There is hardly any industry. Burkina Faso's core problem is its structural poverty: according to figures from 2009, 55.3 percent of the population have to live on less than 1.90 US dollars per day, which classifies them as extremely poor (World Bank, 2015b). Although the country has achieved some success in combating hunger³⁰, the situation remains a cause for concern. According to the national development programme for the rural sector (*Programme National du Secteur Rural*, PNSR; FS-DOK 5), 34 percent of the population are still chronically undernourished. A key challenge in this connection is the country's high population growth. According to projections, by 2050 this will elevate the number of inhabitants from 17.6 million currently to around 50 million, which is almost a threefold increase. The country must therefore cope with a drastically rising demand for food in conjunction with a growing scarcity of agricultural land. As a landlocked nation, Burkina Faso also has considerable geographical disadvantages. The export industry is exposed to very high transportation costs, and imports are correspondingly expensive. At the same time, the latter factor does confer a certain protection on domestic agricultural production.

In its national poverty reduction and growth strategy (*Stratégie de Croissance Accélérée et de Développement Durable*, SCADD; FS-DOK1) the Burkinabe government ascribes a particular potential for poverty reduction to the promotion of agricultural value chains. Against this backdrop, the national development programme for the rural sector (PNSR; FS-DOK 5) drafted with support from German development cooperation, is aimed at raising agricultural production and diversifying the range of products offered. Intensifying the marketing of agricultural production, compliance with quality standards for agricultural products, access to financing, and the modernisation of agricultural enterprises are emphasised as special challenges. To achieve these objectives, the PNSR specifies the following intervention areas which also occupy a prominent position in German value-chain promotion:

²⁸ The diagram showing the constellation of actors includes, in brackets, the number of interviews conducted with the given actors or actor groups. INT stands for individual interview, GINT for group interview, and FGD for focus group discussion.

²⁹ The Human Development Index (HDI) is an indicator of prosperity for countries. It is published every year by the United Nations Development Programme (UNDP) and takes account of per-capita gross national income, life expectancy, and the duration of education in terms of number of years of schooling.

³⁰ For example the Global Hunger Index – a statistic based largely on measuring undernourishment in the population – fell in Burkina Faso from 53.0 in 1990 to 31.8 in 2015 (Welthungerhilfe et al., 2015).

- 1) promoting initiatives and groups that can make a contribution to economic and social development;
- 2) promoting entrepreneurship in farmers and processors;
- 3) promotion of agricultural value chains (including rice) ;
- 4) promoting norms and improvement of the quality of agricultural products;
- 5) improvement of marketing;
- 6) promoting the consumption of local products; and
- 7) promoting access to financial services.

Germany is one of Burkina Faso's largest bilateral donors and is seen as an important partner. Cooperation focuses on the priorities of agricultural and resource management, decentralisation and municipal development, and drinking water supply and sanitation. The money originating from international cooperation together with foreign loans makes up around 70 per cent of the state budget.

5.1.1 Case study: Rice value chain

In Burkina Faso, rice ranks as the fourth most important grain crop – after millet, sorghum and maize – both in terms of land area under cultivation and the volume of production. According to the national strategy for the development of rice farming (*Stratégie nationale de développement de la riziculture*, SNDR 2011), production only meets half the country's demand, while the remainder is imported. Demand for rice is on the increase. In the cities especially, rice is increasingly in demand because it is easier to prepare than the traditional "tô" (maize pulp), which also happens to be more expensive.

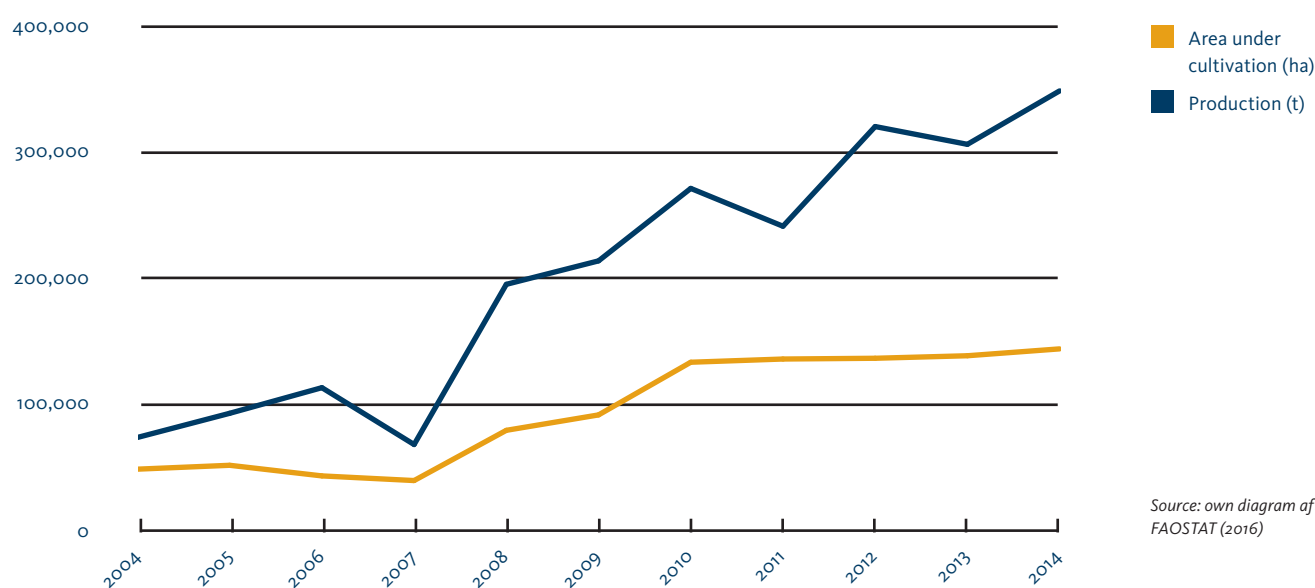
Rice is produced in Burkina Faso in three different ways: rain-fed farming, water-regulated production on flood plains, and irrigated farming. Each type of farming produces different yields: approx. 1 tonne/hectare (t/ha) for rain-fed agriculture, in floodplains with improved water management (*basfonds*

aménagé) approx. 2.5 t/ha with a potential of 4 t/ha, and around 4–7 t/ha for irrigated production. There is a high potential for boosting rice production, since according to official estimates only 10 per cent of suitable floodplains and less than 5 per cent of irrigable land are under cultivation (Gouvernement de Burkina Faso, 2011).

The food crisis of 2007/2008 was keenly felt in Burkina Faso because of poor harvests in the Sahel, the rise in the prices of staple foods in the global market, and a tightening of import controls in order to combat corruption. Mainly in response to this, in 2009 the government of Burkina Faso instigated the development of a national strategy to promote rice farming. The objective is to valorise the unexploited potential and simultaneously reduce the import expenditures of around 60 million euros per year. In order to achieve this objective, the following four strategic axes were identified: expansion of land under cultivation, sustainable intensification of production, refinement through processing and research/ advisory work, and promoting the capacities of the actors involved, particularly of the rice-sector association *Comité interprofessionnel du Riz du Burkina* (CIR-B), farmers' organisations and cooperatives. The long-term objective is for the country to be self-sufficient in rice. The national strategy for the development of rice farming is part of the National Rural Sector Development Programme (PNSR), which in turn covers the rural sector under the overall national development programme.

In the period between 2008–2014, annual rice production was raised from 195,102 tonnes to 347,501 tonnes, i. e. by 78 per cent, while the area of land under rice cultivation increased by 80 per cent during the same period (FAOSTAT, 2016). The majority of the growth in production was therefore achieved by expanding the area under cultivation.

Figure 4: Rice production in Burkina Faso



There are numerous bottlenecks and challenges in the rice value chain. Knowledge about production, post-harvest treatment and subsequent processing is poor. There is unexploited potential, not only with regard to the quantity and quality of primary production but also with regard to processing, and the quality that reaches the final consumer is rarely satisfactory. There is insufficient access to means of production, financing and improved seed. The absence of dependable business relationships makes transactions more difficult, particularly between producers and processors. The associations of the various links in the chain are weak, and barely perform any functions for their members. Because of the country's low degree of self-sufficiency and the options for making productive use of additional land for rice cultivation, however, the rice sector in Burkina Faso has great potential.

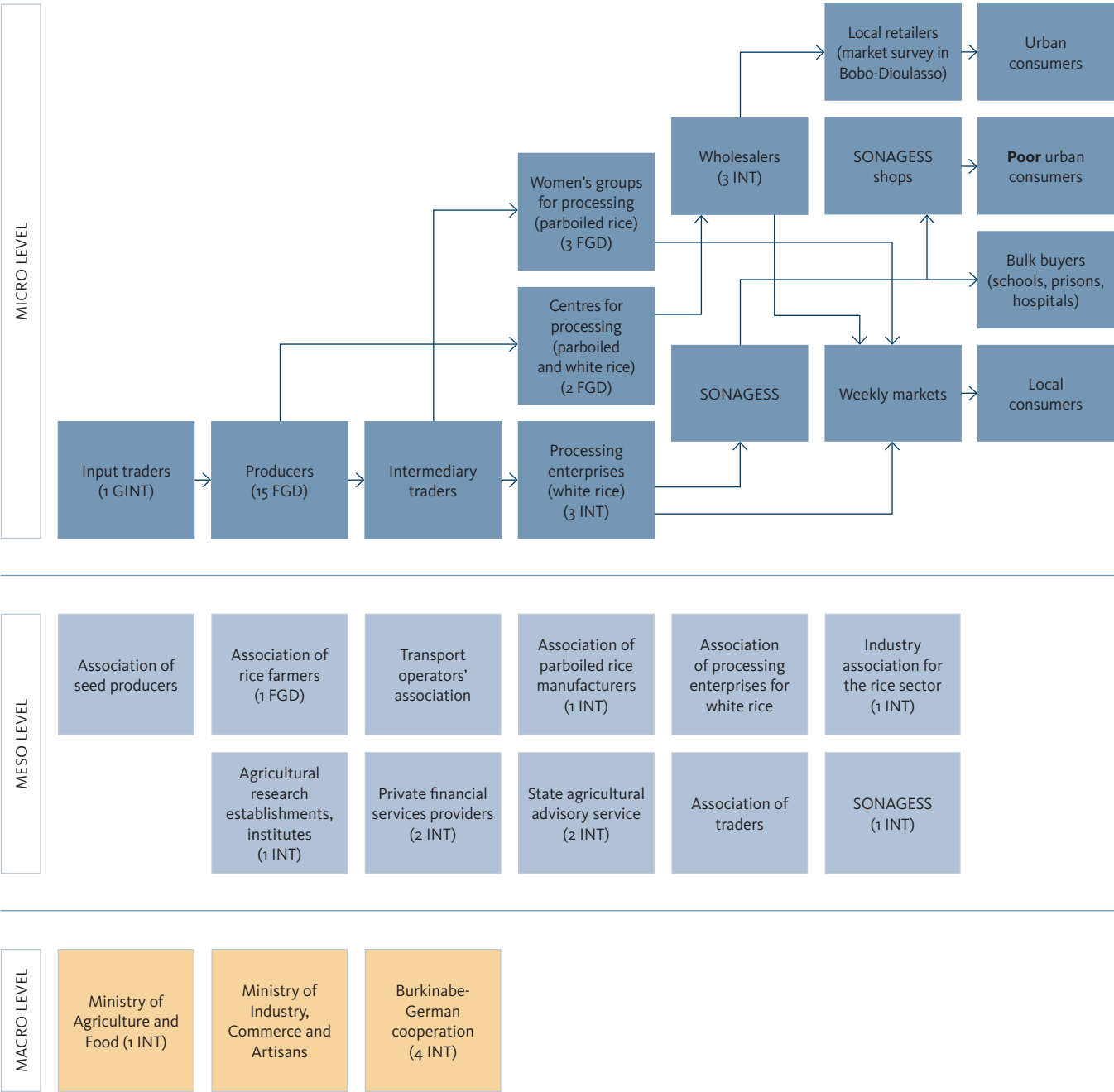
Constellation of actors in the value chain

According to estimates by the General Directorate for the Promotion of Rural Economy (DGPER), there are some 324,000 producers, mainly smallholders, cultivating rice in Burkina Faso. Rain-fed production accounts for around 9 per cent of this, and irrigated rice 3 per cent. The vast majority (88 per cent) is produced in floodplains, just over half of which are floodplains with improved water management (*basfonds aménagés*). Most smallholders farm land areas of between 1 hectare in the large irrigation perimeters and 0.12–0.25 hectares in the floodplains. It is common for women to be farming plots of land and producing rice to earn income of their own. The rice farmers are organised in a producers' association (*Union Nationale des Producteurs de Riz du Burkina*, UNPR-B). Marketing normally takes place directly between the farmers and the processors. Smaller wholesale buyers of rice play a subsidiary role. There are essentially two types of processing: around 52 per cent of national production is processed into parboiled rice, an activity that is almost exclusively carried out by women. The DGPER

estimates that some 16,400 women work in this area, some as individual manufacturers or as part of small women's groups in the villages, and some organised in larger centres. The women are organised in the national union of women manufacturing parboiled rice (*Union Nationale des Etuveuses de Riz*, UNERIZ), founded in 2010. There are a few (under 10) semi-industrial small factories in which polished white rice is manufactured. Since 2011 these factories have been organised in the national union of processors (*Union Nationale des Transformateurs du Burkina*, UNTR-B), and the majority are located in the vicinity of larger cities, particularly in and around the regional economic

centre of Bobo-Dioulasso. This is also the location of the headquarters of the rice sector's industry association (CIR-B). Apart from the associations mentioned, its membership includes the seed producers' union (*Union Nationale des Producteurs de Semences*, UNPS-B), the traders' association (*Association Nationale de Commerçants du Riz du Burkina Faso*, ANaCoR-BF) and the transporters' organisation (*Organisation des Transporteurs Routiers du Faso*, ORTRAF). Within the framework of development cooperation, the sector association CIR-B, in particular, has been and continues to be promoted.

Figure 5: Constellation of actors in the rice value chain in Burkina Faso



The actors in the chain are supported both by the state advisory service and by various projects and non-governmental organisations (e.g. Oxfam). One key actor within this constellation exerts a strong influence on the entire chain and to some extent militates against market-based practices: namely, the governmental organisation SONAGESS.

Infobox 2: The national society of food security stock management (SONAGESS)

SONAGESS was founded in 1994 to manage the national food reserves, which consist of millet, maize and sorghum. Its core tasks are to stabilise food prices and to receive and manage food aid so as to ensure food security in Burkina Faso. Since 2005 it has been managing an additional food reserve, the *stock d'intervention* (SI), which contains millet, sorghum, maize, beans and rice. The purpose of the organisation is to stave off price increases and to alleviate regional bottlenecks, for instance by means of subsidised sale or free distribution. As a reaction to the 2007/2008 food crisis, SONAGESS was commissioned to buy up domestically produced rice at a minimum price specified by the state, and to use it to supply bulk buyers like the army, schools and prisons at subsidised prices. At the same time, sales outlets for subsidised rice were established in the larger cities. The precondition for purchase by SONAGESS is the sale of a minimum quantity which equates to a lorry load. This purchase guarantee, applying to both paddy rice (raw rice) and to parboiled or polished white rice, represents an important production incentive both for the primary producers and for the processors.

Programmes

The rice value chain has been and continues to be promoted within the scope of German development cooperation, on the one hand by the TC programme “*Programme Développement de l'Agriculture*” (PDA), and on the other hand by the FC programme “*Valorisation of Floodplains*” (*Programme d'Aménagement de Bas-Fonds dans le Sud-Ouest et la Sissili* = PABSO).

PDA, the TC programme for agricultural development implemented by GIZ, has been active in Burkina Faso since 2004. It is currently in its fourth phase of promotion, which ends in 2016. The total costs of the TC input amount to 30 million euros. The lead executing institution in the partner country is the Ministry of Agriculture. PDA intervenes on the national as well as the regional and local levels.

The objective of the programme is to sustainably raise the income of the rural population and to improve its nutritional resources. Key indicators for the achievement of the programme objective are:

- increased annual income for producers (of which approx. 40 per cent are women);
- shortened period of scarce food supply, and
- increased incomes in the small enterprises engaged in processing and marketing.

The programme takes up the core themes of the partner's sector strategy and supports the partner in its efforts towards market-oriented agricultural production and food security. The target groups are producers and downstream micro-enterprises as well as small and medium-sized enterprises in selected districts of the East and Southwest regions and the Province of Sissili. These are all regions endowed with comparatively good agricultural conditions, particularly in terms of rainfall, but where this potential remains underutilised. The promotion of market-oriented production and processing is intended to lead to higher incomes for poor population strata in rural regions, and thus prevent the migration of predominantly young people into the cities and neighbouring coastal countries. Positive environmental impacts are expected from the activities to conserve soil and water.

Although the project region is considered a surplus region in grain production on the basis of the climatic conditions, nutritional indicators point to undernourishment ranging from chronic to acute. According to a study carried out as part of the *Programme National de Gestion des Terroirs* (PGTN) 2012 only 1.2 per cent of rural households can satisfy the daily calorie needs of their members (national average 6.8 %). The poverty ratio stands at 42.7 per cent.³¹

The total population of the two regions amounts to around 1.6 million inhabitants. The total number of agricultural households is estimated at 250,000, of which a presumed 100,000 are located in the selected districts. By means of its activities to promote the manioc, sesame, cashew and rice value chains and to strengthen the private sector, the PDA pursues the objective of pro-poor economic growth.³² Promotion of the rice value chain began in 2010 during the third phase of promotion at the request of the Burkinabe government.

The FC programme “Valorisation of Floodplains” (*Programme d’Aménagement de Bas-Fonds dans le Sud-Ouest et la Sissili*, PABSO) carried out by GOPA Consulting began in 2006 and is currently in its third phase; a continuation phase is planned. The total costs of the previous phases amount to some 24.5 million euros. The project-executing institution once again is the Burkinabe Ministry of Agriculture.

The objective of PABSO is to make a contribution to food security and poverty reduction for the population in the south-west of Burkina Faso. It aims to do so by making better use of agricultural potential and thereby creating paid employment and income-earning opportunities in the production, marketing and processing of agricultural products. The programme thereby supports the “Sustainable Development of Irrigated Agriculture” component of the PNSR. PABSO plans and carries out construction measures in floodplains (for rice cultivation, mainly bunds along contour lines with gates to regulate the water level) and realises infrastructure measures (access roads, storage buildings) for

better linkage of the participating villages to the market. Furthermore, the programme supports the production, processing and marketing of rice, and in this context distributes small-scale equipment to producer groups and rice-processing women’s groups. Advice and support to the user groups and their umbrella organisations are another important field of activity. Women are explicitly included in the distribution of the valorised land by operating a minimum quota system, and benefit especially from the continuing vocational training courses on parboiled rice processing that are being delivered as part of the project.

Promotion activities

The promotion activities are taking place within the framework of a structure-oriented multi-level approach. It is striking that the promotion activities of the FC programme – apart from the infrastructure measures – correspond in large part to those of the TC programme. PDA and PABSO are normally not active in the same locations. At the time of the evaluation mission, exchange between the two programmes was happening more by chance. As a result, it was not really possible for potential synergies to be realised. Various farmers’ organisations and the umbrella association had accessed further training programmes from both projects, for example. Although this did not lead to duplication, according to responses from the farmers’ organisations, but neither did the further training programmes make any reference to each other. Furthermore, from 2010 to 2013 a PDA staff member was working in the PABSO project locations in the improvement of rice processing, and acted as a link person between the two projects. In this period, the two organisations and their respective partner organisations jointly produced a manual on the processing of rice. Independently of the value-chain promotion, PDA and PABSO cooperate in the field of erosion control in watersheds.

In addition, the PDA has a priority on the macro level and, on the one hand, advises the government on private sector promotion, while on the other, it supports the organisations of the private sector to participate in the shaping of sector policies.

³¹ The distribution of poverty was not surveyed as part of the case studies; the figures and the fact that rice is planted primarily by smallholders permit the conclusion, however, that the target groups – which were selected for the most part by means of self-targeting – are poor.

³² In an initial phase, the PDA promoted a large number of value chains: Bananas, traditional chicken breeding, cassava, maize, vegetable production, cashew, cattle fattening, honey, rubber arabicum, potatoes, onions, sheep breeding, sweet potatoes and sesame. In 2007, the sesame, cashew and attiéké (manioc pulp) value chains were selected for promotion based on the criteria of profitability, number of small and medium-sized enterprises (SMEs) in the value chain, pro-poor growth and environmental compatibility, and on the basis of gender aspects and the comparative advantages of German development cooperation.

On the level of the target groups, awareness-raising with a view to market-orientation as a basis for participation in value chains has played a crucial part from the outset. Further training courses in simplified business planning and book-keeping, but also recently in the form of trainings at establishments known as Farmer Business Schools (FBS), were aimed at conveying the necessary basics for efficient operational management. The further training in FBS comprises 11 modules which, besides business planning, also include themes like nutrition, book-keeping, commercial thinking, negotiation and contract drafting, metrological standards, access to financing, and membership of farmers' organisations. In all group discussions, the participants commented very favourably on these training courses. Nevertheless, processors in particular pointed out that because they lacked access to loans and technologies, they had very limited scope for putting what they had learned into practice. The extent to which any of the content was actually put into practice has not yet been possible to assess within the framework of this evaluation. An inspection of one women's group's cash book, for example, brought many errors to light. They occurred because the women were illiterate and the books had been filled out by schoolchildren. Nevertheless, the women believed that – even if the figures in the book were incorrect – they now had a better idea of their production costs, and would incorporate these into their pricing. This brief excursus illustrates the difficulties that can arise when passing on “business administration tools” as a basis for entrepreneurial thinking and action in a region with a high rate of illiteracy.

The marketing of Burkinabe rice is subject to two main problems: firstly, the quality is still not high enough, for the most part; secondly, Burkinabe rice does not swell up when boiled in comparison to imported rice – which was mentioned very frequently in the interviews as a disadvantage “*when there are many mouths to feed*”, making poor households more likely to prefer imported rice. In the area of marketing promotion,³³ development cooperation set the priority on raising awareness and empowering actors to supply the market with varieties that are in demand and satisfy the expected quality standards (moisture content, purity, proportion of broken rice).

People had very positive impressions of the further training courses on rice production and processing that were delivered to address these issues, and of the hygrometers, tarpaulins and scales provided. In the processing enterprises, further training courses were additionally carried out on occupational safety. It emerged clearly from all group discussions that people had understood the value-chain concept, whereby production and processing should be geared towards the market, and were trying to put it into practice. But in this context once again, inadequate access to financing was cited as a problem.

The influence of SONAGESS on rice marketing and its ambivalent role was an ever-present issue throughout the field studies. On the one hand, it was appreciated that SONAGESS buys up rice at a state-determined minimum price, and thus represents a guaranteed sales market. On the other hand, there was criticism that SONAGESS competes with processors in buying and selling rice. The fact that the organisation sets no quality criteria with regard to purity or consumer taste preferences took away the incentive to work on quality improvement. The resultant erratic, often poor quality of the product harmed the reputation of Burkinabe rice and had a negative effect on private trade. At the same time, SONAGESS monopolised the market of bulk buyers like schools, hospitals, the military etc.³⁴ This problem was particularly raised as an issue by the semi-industrial enterprises. A further problem in this regard was traceability, since SONAGESS does not label its sacks with the product's place of origin.

The construction of roads and warehouses makes for easier marketing, particularly to bulk buyers. It was interesting in this connection that in many cases the storehouses were only used for the part of the crop intended for sale through the farmers' organisations. Many members preferred to store their rice on their farms rather than in the storage facility, since they did not want the quantity they had harvested to become public knowledge.

A major problem influencing the market-orientation of actors in Burkina Faso is the poor reliability of business relationships. Not only does non-adherence to agreements entail high

³³ The market for Burkinabe rice was also to be promoted in 2015 by an education and information campaign on the quality and the preferability of Burkinabe rice over imported rice. Impacts could not yet be ascertained at the time of the evaluation.

³⁴ In addition there are management problems of every conceivable kind, resulting in situations such as buyers taking far too long to pay for the goods they have bought, so that the producers have no money to purchase inputs for the next season; or buyers failing to collect the rice they have bought and paid for, so that it takes up storage space, etc.

transaction costs, but at the same time it also leads to supply bottlenecks in the chain. Within the framework of development cooperation, meetings were organised to bring about networking of actors, to raise their awareness, to sign and adhere to contracts, to found unions and cooperatives, etc.

In order to improve the organisation of actors in the rice value chain, German development cooperation – partly by deploying a female development worker – made great efforts to promote and revitalise the rice-sector association CIR-B, originally established in 2001. In the opinion of the majority of persons interviewed, CIR-B is increasingly fulfilling its role as the rice industry association. At the time of the evaluation, it was negotiating with the responsible bodies at government level in order to alleviate the negative consequences for processors of minimum prices in primary production. One of its demands, for example, was to set minimum prices for processed rice as well. Whether the CIR-B, which is financed on a degressive scale by development cooperation, will continue to function in the longer term depends on how far its members are prepared to finance it themselves. For example, there are plans to offer services for members which justify the payment of membership subscriptions. The CIR-B also receives support from other programmes apart from the PDA. In order to improve coordination between the donors, it has put forward an action plan in which the promoting organisations should participate in order to avoid the duplication of promotion – which is common in the large women's cooperatives, for example – and allow the support to reach a greater number of actors. The donors have agreed priority regions for promotion among themselves as a precaution against duplication of support. Nevertheless, certain groups – such as especially active women's groups – still attract support from multiple sources because their successful outcomes are more readily demonstrable, making them more attractive to governmental and non-governmental donors.

Analysis of the dynamics of farmers groups – especially in rice production – yielded the finding that the existence of many groups is endangered unless they have contact with governmental or non-governmental donors. The motivation for the foundation of a group is frequently to receive external support, be it in the form of services, subsidised fertilisers or seed. Many meetings

attract hardly any attendees, because no per diem allowances are paid. Although the dynamics within the groups could not be analysed in more depth in the course of the evaluation, the sense of ownership is assessed as weak. This was evidenced, for example, in the fact that the farmers' union was only used for the distribution of subsidised fertilisers and seed and the marketing of rice, which had to be sold to SONAGESS in return for the subsidised farm inputs.

However, the promotion of farmers' organisations and cooperatives as central structuring elements of value chains is made more difficult by the stipulations of the regional economic communities (ECOWAS, UEMOA); these prescribe how value chains are to be structured, and are not therefore suitable for bottom-up promotion of local structures and networks. Rather, the diversity of existing regulated occupation-based organisations prevents the establishment of organisations with high ownership and an attractive provision of services for their members. Ultimately this inhibits the effective, sustainable structuring of value chains.

With the exception of the women manufacturing parboiled rice, women are barely represented in the organisations – which is attributable to cultural factors – and their role is distinctly subordinate to the men's. Development cooperation has not undertaken any noticeable activities to change this.

Thanks to advisory work on the improvement of production techniques in primary production – for example, on using pure, single-variety seed, making more economical use of seed by drill-sowing, adhering to the agricultural calendar, correctly applying mineral fertilisers and herbicides,³⁵ or on post-harvest treatment – it was possible to increase land productivity and reduce harvest losses, according to unanimous responses from the target groups. Criticism was voiced, however, that neither PABSO nor PDA have resources to rehabilitate old floodplains that have become unusable due to erosion. The training of seed producers in various floodplains is helping to improve access to high-quality seed. Costs are also being lowered by making more economical use of seed, e.g. by drill-sowing. Women participate in the further training courses in significantly smaller numbers, however. Apart from their high workload, this may be explained by the fact that it is barely feasible to

³⁵ Since agriculture competes with illegal gold mining in the project region, and labourers are in short supply, the use of herbicides to save fieldwork ostensibly makes sense.

run joint training sessions for men and women, particularly in Muslim contexts. The appointment of women as advisers within the framework of the projects and programmes fell flat because (for sociocultural reasons) few women are trained as agricultural advisers and are willing or permitted to work in remote locations for the advisory services.

Final assessment of the promotion

Promotion of the rice value chain has been successful in achieving production and productivity gains for rice farmers as well as better rice quality, although the latter continues to present a challenge. Paid employment was created in the short term, particularly in the course of infrastructure projects. In the rice chain itself, no major effects were observed in relation to employment.

In the discussions with producers it was emphasised that the valorisation of floodplains and the improvement of cultivation techniques had led to an increase in rice production, and hence higher incomes. At the same time, the accompanying water management fosters resilience against fluctuations in weather conditions. The sustainability of the irrigation measures is heavily dependent on land rights, however. Disputes often arose after the fact, because in Burkina Faso the legal position on land tenure is frequently unclear. As a consequence, many of the floodplains are no longer farmed or only partially cultivated.

The valorisation of the floodplains has also enabled women who previously had no access to land to obtain a plot for cultivation. Generally, however, the women's plots are smaller than the men's. This is linked to the fact that women do not have the required labour at their disposal to take on a larger plot, because in addition to housework they first have to work in their husbands' or families' fields. Nevertheless the women can now cultivate rice and generate their own income, which in turn has positive effects on the family's diet.³⁶ No longer is rice treated as a dish for feast-days only; it has now become a part of everyday meals. It was frequently pointed out that rice cultivation had made it easier to cope with the months in which food is scarce. The further training courses on rice storage in the private granaries were very positively received, and contribute to food

security. However, rice was also used to cover expenditures arising in the course of the year for such items as medicines, food, schooling and funerals. It is therefore fulfilling the otherwise missing function of savings and insurance mechanisms.

The difficulty of accessing financial services was raised as an issue predominantly by the groups that were not promoted within the framework of PABSO. While FC had set up funds to support the construction measures in the floodplains, with which people continued to work even after the promotion came to an end, there were no TC activities in this area.

The promotion of production techniques for processing into parboiled rice not only contributed to an improvement of quality; it also gave rise to small women's groups who manufacture this rice. However this often occurred for want of alternatives, since the activity is not seen as especially profitable: demand on the local market is low due to the prevalence of subsistence farming, while the quantity produced is often too small to be marketed in the larger centres. Furthermore, it was noted that this activity is only open to women who have resources at their disposal to buy paddy rice for processing. For the large cooperatives for the manufacturing of parboiled rice in Bama (689 women, turnover approx. 500 tonnes of rice per year) and Bazon (450 women, turnover approx. 300 tonnes of rice per year), marketing is easier because SONAGESS is involved here as a wholesale purchaser. These groups also have access to loans in order to buy paddy rice.

The gains in production and improvement in quality have only partially filtered through to the market, however. A survey at the market in Bobo Dioulasso, the most important regional economic centre, revealed that Burkinabe rice is barely offered there, even though according to the opinions of experts³⁷ around 60 per cent of domestic rice is now marketed. This may be explained partly by the fact that SONAGESS buys up the majority of the rice and sells it to bulk buyers or (more cheaply) in the sales outlets. Another factor is that rice is not necessarily sold in larger quantities, but often – as mentioned above – in small amounts at weekly markets, as and when money is needed.

³⁶ According to the producers' responses, rice production was not considered a high-status farming activity because the production was viewed as "laborious". Often this is also the reason why men are happy to turn over these plots to women. In most of the interviews it was mentioned that the women's rice fields are better tended.

³⁷ Workshop held as part of the debriefing on 22nd of May 2015 in Ouagadougou.

In summary it can be emphasised that in the five years in which the rice value chain was promoted, considerable progress was achieved. Nevertheless, there is a continuing need for promotion, particularly in marketing and in establishing dependable business relationships.

5.1.2 Case study: Cashew value chain

Cashew trees are originally native to Brazil but are cultivated in many tropical countries today. They bear “false fruits” (pseudocarps) – around 5- to 10-cm-long, edible fruit stems which externally resemble bell-peppers or pears and are known as cashew apples. The cashew fruits that hang below them contain the cashew kernels that are commonly referred to as nuts. Several steps are necessary in order to gather them: after harvesting, first the fruit is separated from the cashew apple. Because the skin of the cashew fruits contains toxic oil, they undergo roasting in order to neutralise the poison. Next the fruit is cracked open, which is frequently done by hand. Finally, the exposed kernels still need to have their skin removed manually. This elaborate process also explains why cashews are expensive in comparison to other nuts. Cashew kernels are highly prized on the global market, where they are registering rising demand. The most important sales markets are Europe, North America, India and China, where the cashew kernels are traded and processed at high prices as a raw product. The list of the world’s largest producers is headed by Vietnam and India, yet Asia is increasingly struggling to meet the rising demand from its own production. For the cultivation of cashew kernels in the African market, this trend offers great competitive opportunities, although little use has been made of them so far due to the low productivity and quality of the product cultivated and limited capacities for processing.

In Burkina Faso the first cashew plantations were planted in the 1960s for afforestation purposes, without any economic interest in the use of the fruits. Cultivation of cashew as a cash crop only began in the 1980s. In order to expand the cashew sector, the government launched a project at the end of the 1990s to plant one million cashew trees. Nevertheless, until a few years ago many Burkinabes remained unaware of the value of cashew kernels and only made use of the cashew apples. The low level of awareness is also partly attributable to the

fact that being so expensive to buy because of the elaborate stages of processing, cashew kernels are barely consumed in the country itself but generally exported immediately as raw nuts or in processed form.

The rising demand in the global market offers a great opportunity for the further development of the cashew value chain in Burkina Faso. There are various bottlenecks and challenges in the chain, however: the productivity of local production is low by international comparison, whereas the processors’ expectations regarding the quality of the nuts are high. In addition to expertise on cultivation techniques, what is most necessary is improved propagation material. Moreover, there is a lack of entrepreneurial skills and of information and exchange of knowledge, especially on market prices. This, in turn, is closely related to the low degree of organisation within the chain, particularly on the level of primary production. There is a continuing absence of means of financing, especially for processors, which could otherwise help to boost the domestic share of processing, and hence the added value generated within the chain.

Furthermore, while the high demand in the global market represents a great opportunity, it also presents a sizeable risk in the event of major price fluctuations. This interplay emerged especially clearly in the cashew case study: in 2015 the sale price of raw nuts in Burkina Faso doubled within two months as a consequence of global harvest failures. This price rise immediately before the case study was carried out enabled producers to achieve high sales revenues. However, it also clearly impaired the effectiveness and sustainability of the promotion logic with regard to strengthening local business relationships and increasing domestic value creation, since a large share of the raw nuts were bought up by foreign traders.

Constellation of actors in the value chain

According to estimates, in Burkina Faso there are around 80,000 farmers actively cultivating cashew.³⁸ 90 per cent of these are located in the country’s south-western regions (*Cascades, Sud-Ouest, Hauts-Bassins, Centre-Ouest*). Occasionally, plantations can be up to 50 hectares in size. Most plantations are relatively small, however, and measure 2 to 5 hectares. This can be traced back to the fact that these are generally

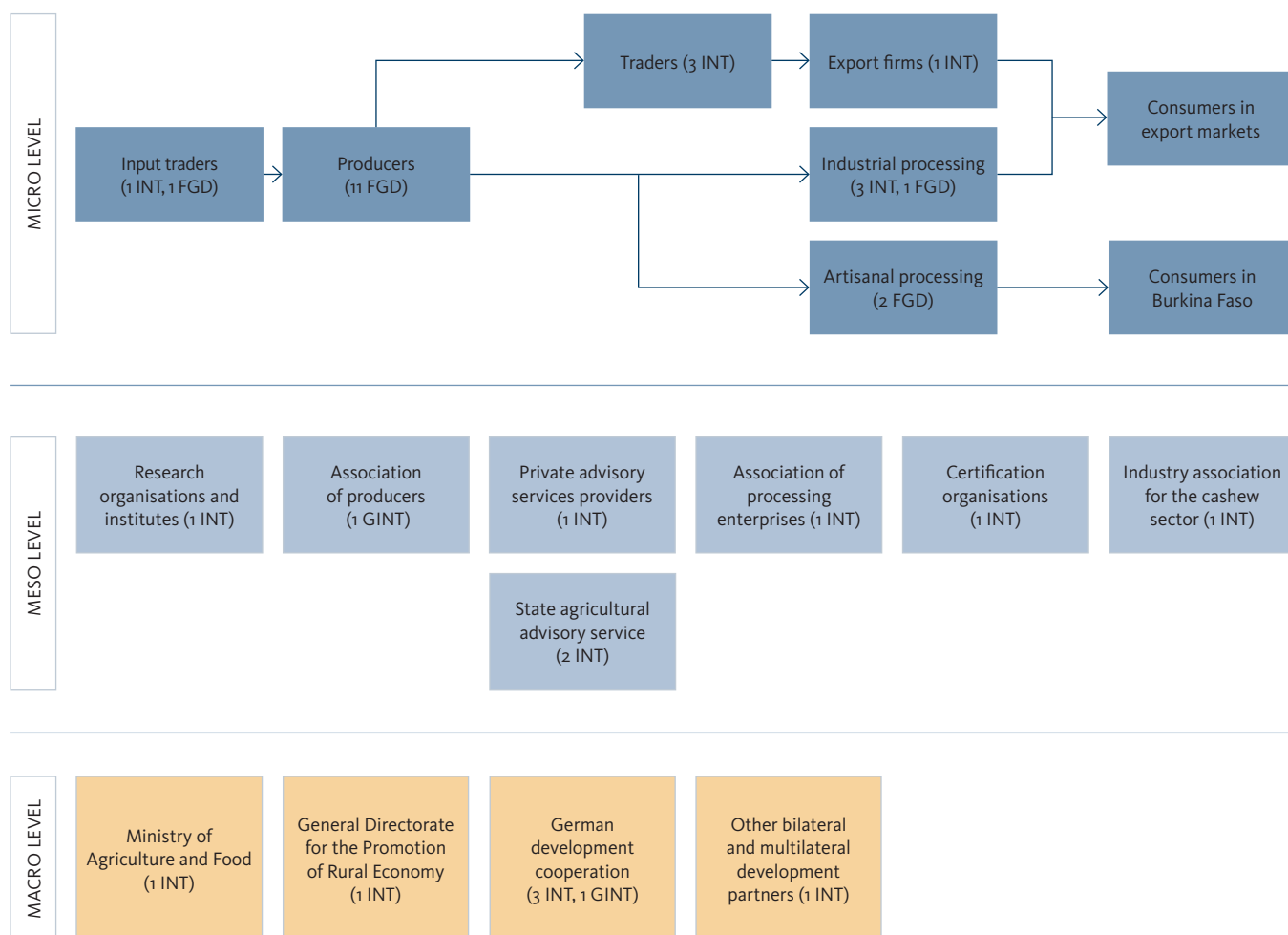
³⁸ Precise figures for this, and indeed for other sectoral indicators, are hard to obtain, particularly since state sources are not in possession of current data. The majority of figures are therefore taken from project documentation of the African Cashew Initiative programme, which is examined more closely below.

smallholders, for whom cashew nuts are just one of several products. Producers have markedly increased their degree of organisation in recent years: there are now around 200 local farmers' groups and cooperatives, which are structured into four regional associations according to their administrative regions. Since 2013 there has also been a national umbrella organisation for cashew producers (*Union Nationale des Producteurs d'Anacardes*, UNPA). According to its own information, it comprises almost 4,000 members, of which women make up a share of less than one per cent. Relative to the number of producers, the membership rate stands at around five per cent. The value chain is largely defined by the suppliers of agricultural inputs. In cashew production, this refers predominantly to the supply of seedlings or the propagation of improved young plants in tree nurseries.

The processing of the cashew kernels is carried out either manually or – in larger enterprises – mechanically. Whereas cashew producers are mainly men, the vast majority

of employees in processing are women (more than 70%). Processing activity is predominantly based in the region around Bobo-Dioulasso, the regional centre for trade and industry. Since 2013 there has been an association of processors (*Association Nationale des Transformateurs d'Anacarde*, ANTA) which comprises seven smaller and three large enterprises. Only the latter supply the necessary quantities for export to the international market and meet the requisite quality standards. Furthermore, at the beginning of 2015 a cashew sector association was brought into being (*Comité interprofessionnel d'Anacarde du Burkina*, CIA-B), which consists of the umbrella organisations for production and processing. Thanks to the high and rising demand for cashew nuts, trade in the nuts is very lucrative. In addition to the domestic trade, there are large numbers of foreign traders who buy up cashew nuts. This happens either at markets or by direct purchase of the raw nuts "ex field". Raw nuts-in-shell are commonly transported out of the country for processing, largely to Vietnam and India.

Figure 6: Constellation of actors in the cashew value chain in Burkina Faso



Beyond this, there are numerous organisations that are involved with or have an influence on processes within the chain: for instance, the development of improved planting material is advanced with the support of research institutes. Furthermore, there are private sector organisations dedicated to the development of sustainable supply chains, e.g. through networking of actors, technical support and/or training activities. Added to that, diverse international NGOs and state development cooperation organisations are also working in situ, either on one-off measures or as part of more comprehensive programmes of promotion. On the state side, the most significant is the Ministry of Agriculture, Water Resources, Sanitation and Food Security (MARHASA). One of its largest administrative bodies, the General Directorate for the Promotion of Rural Economy (DGPER), is responsible for ensuring and supporting implementation of the national agricultural policy and strategies. In this function it is involved in many processes of the cashew value chain and is increasingly taking on a coordinating role with regard to the sector's development.

Programmes

Promotion of the cashew value chain in Burkina Faso took place within the framework of three different projects and programmes: it was initially promoted by the *Programme Développement de l'Agriculture* (PDA; see rice case study), which carried out preliminary analyses of the chain before launching the first promotion activities in 2009. In the years that followed, however, the promotion was handed over entirely to the African Cashew Initiative (ACi). Another project devoted to developing the capacity of producers and processors in the cashew sector was run from 2009 to 2011 under the auspices of develoPPP.de and managed by sequa.³⁹

The ACi is a broadly based and innovative value-chain promotion model operating in five African countries.⁴⁰ Numerous national and international partners from the public and private sectors are involved in its implementation under

the coordination of GIZ. The programme aims to help improve the competitiveness and income situation of smallholders, processors and other actors along the value chain, and so to contribute to poverty reduction. The promotion activities of the ACi towards this end are concentrated on four work areas:

- improving production in terms of quantity, quality and efficiency,
- improving and expanding the processing of cashew nuts,
- establishing and integrating sustainable supply chains, and
- improved organisation of the cashew sector.

The ACi works both directly with actors in the chain, and with and through supporting organisations like the state advisory services. In addition, the creation of appropriate framework conditions is supported by the exchange of views and experiences on the state level. Although this procedure characterises the promotion programme as a structure-oriented approach, at the same time it also has a clearly firm-centric component, since one of the promotion's priorities is the targeted support of processors with export capability. In some cases these are autonomously taking on advisory functions for producers in order to secure a reliable and high-quality supply of raw nuts for themselves, and exert a pull effect (demand-led incentive) on primary production. Thus the ACi represents a combination of the structure-oriented and firm-centric approaches. The programme began in the year 2009 and went through two phases of promotion up to the end of 2015. The subsequent third phase will end in the year 2020.

The ACi's available budget cannot be earmarked for Burkina Faso separately, but only for the entire programme, i.e. for all five countries. The financing is contributed by several partners: apart from the BMZ's share, the bulk is borne by the Bill and Melinda Gates Foundation (BMGF). Private-sector co-financing is also being contributed via an integrated PPP fund (known as the "Matching Fund") and other direct outputs.

³⁹ Since the individual projects and programmes carried out similar activities or delegated their implementation to other parties, these are summarised in the case study and considered from the viewpoint of an overall promotion portfolio.

⁴⁰ Benin, Burkina Faso, Côte d'Ivoire, Ghana, Mozambique.

Table 6: Budget of the African Cashew Initiative, by donors

Donor	Phase 1 (04 /2009 – 09 /2012)	Phase 2 (10 /2012 – 04 /2016)
BMZ	6.4 million €	7.4 million €
Bill and Melinda Gates Foundation	approx. 18.7 million €	6.7 million €
Kraft Foods	0.7 million €	
Monetary and non-monetary support from private and public partners (ACi Board members)	approx. 17.0 million €	approx. 26.8 million €
Contributions from private partners to integrated development partnerships, and from public partners as subsidies.		5.8 million €
Total	approx. 42.8 million €	approx. 46.7 million €

Although GIZ is ultimately responsible for coordinating its implementation, the programme's steering and strategic orientation as a whole is substantially determined by the forum of a group of “core partners” (the Board). This is composed of those private- and public-sector actors whose contributions to the programme amount to at least one million US dollars per phase in cash or non-cash donations.⁴¹ Furthermore, both an overall steering committee and national committees exist to provide advice on regional implementation. The composition of national committees is tailored to the specific countries (and especially their associations, government and donors).

Promotion activities

A central element of the promotion is to strengthen business relationships and the organisation within the chain, whilst at the same time optimising production and processing. The individual promotion activities address different priorities. They can be employed flexibly according to need and, to some extent, may be carried out by private and public partners under their own responsibility.

Because there are information deficits within the chain concerning prices, the programme disseminates price and market information with recommendations for various actors. In part, this is supplied by a French NGO that is active in the locality, and then disseminated more widely by the ACi. The benefits of this for producers came through very clearly in the interviews: it was reported that traders had deliberately spread the misinformation

that a raw-nut surplus would shortly cause a price collapse. However, the availability of accurate market information saved the producers from selling their harvest well below value. Access to sales markets barely poses a problem because, given the high demand, the sale of the crop to traders often takes place “ex field”. Likewise, the processors included in the promotion have adequate market access because they have reliable business relationships with international corporations.

In order to promote entrepreneurial skills and market understanding among producers, training content such as marketing options, (price) negotiation, contract drafting or book-keeping is taught within individual training components. It was stressed by the farmers' groups interviewed that, thanks to the training courses, they had acquired a better understanding of their own enterprise and business planning and of the overall structure of the value chain. They further emphasised that they had internalised and were now aware of the necessity for and advantages of reliable and stable business relationships. Nevertheless, they had recently failed to fulfil many of the existing supply contracts with local processors because, in the wake of the price rise, distinctly higher sales revenues had been achievable from foreign traders.

The establishment of lasting business relationships by producers with domestic processors is supported by a large number of activities which contribute primarily to the structuring of the chain. Training courses raise the awareness

⁴¹ Alongside the BMZ and the Bill and Melinda Gates Foundation, these also include Intersnack, the Trade & Development Group (TDG), Olam and USAID.

of producers about the potential of unions, and equip them with the necessary skills to found and organise cooperatives. Added to that, the promotion programme initiated or supported the foundation of the national associations for production (UNPA) and processing (ANTA) as well as the national sectoral association (CIA-B), partly by cooperating with the state General Directorate for the Promotion of Rural Economy. Various formats for collective information-sharing are used to promote dialogue between these associations. They also receive financial and thematic support. It was emphasised by actors from various stages of the chain that the activities on structuring and on information exchange had reinforced their understanding of the structure of the supply chain as well as their knowledge about the interests of other actors.

A further promotion activity to strengthen business relationships and cooperation within the chain is known as the “Matching Fund”, a financing instrument that pursues several objectives simultaneously: project proposals and applications submitted by actors from the chain are co-financed via the Matching Fund according to the PPP principle. For example, this made it possible to use suitable service providers to support processors in establishing direct business relationships with farmers’ groups, and to provide the latter with training on production and quality requirements. Furthermore, the Matching Fund is also addressed to public partners like research institutes, which receive support to develop improved planting material. Thus the Matching Fund counteracts the shortage of financing opportunities, contributes to organisation, cooperation and capacity development within the chain, and in addition, directly supports improvements of product quality.

A range of other activities of a preparatory nature that took place mainly in the first few years of the promotion are aimed at improving the quantity, quality and efficiency of production. For the promotion of primary production there are further training courses on cultivation, post-harvest methods and storage. To begin with these were delivered directly by the staff of the ACi; in the meantime, this work has largely been outsourced to private and public partners and broad coverage has been achieved, not least by proceeding according to the train-the-trainers principle. At the time of the case study around 50,000 farmers had received a full training programme

(i.e. had attended two courses to completion), which equates to almost two-thirds of producers countrywide. The acquired skills are being put into practice for the most part, although the take-up rates vary. For example, instructions on the planting of trees are more likely to be adopted than techniques for tree pruning, because poorer producers in particular have anxieties about short-term reductions in harvest which tend to outweigh the potential for better productivity in future. There are ongoing efforts to communicate to the farmers’ groups the advantages of certification models (organic, Fairtrade) and the requirements that need to be met. Over time, several groups have obtained organic or Fairtrade certification and can therefore achieve higher revenues from selling their cashew kernels. It was mentioned in the interviews, however, that they find it difficult to afford the costs of recertification. Overall, the participants assess the training courses as very helpful and conducive to the productivity and quality of production. This assessment is also supported by a statistical indicator: the quality of the production can be measured in terms of the kernel out-turn ratio (KOR), which expresses the proportion of usable cashew kernels in a specified quantity of raw nuts. The associated rating scale is roughly in the range from 40 (low quality) to 50 (excellent quality). In the project regions prior to 2009, the KOR in the majority of cases was measured at 44 or below; in the meantime, however, values of 46 to 49 are being achieved. Producers also have an economic incentive to improve this value since, based on the KOR, higher sales prices can be achieved for the same quantity of raw nuts. As part of the training courses they are therefore supplied with measuring devices to determine the KOR, and instructed in their correct use.

The productivity of local production remains problematic, however: in a country like Vietnam around 1,200 kilograms of raw nuts per hectare are harvested, whereas harvest yields in Burkina Faso stand at around 250 to 400 kilograms and sometimes even lower than that. Although the improvement of cultivation has already succeeded in achieving productivity gains, the comparatively low yields can be traced back to low-quality planting material – i.e. the local cashew trees.⁴² Equally, increasing fluctuations in the climate also affect yields, and must be borne in mind when selecting and propagating suitable planting material. Therefore, as part of the promotion,

⁴² This, in turn, is explained by the fact that cashew plantations in Burkina Faso were originally planted for afforestation purposes, before there was any economic interest in the use of the fruits and hence the quality of the planting stock.

tree nurseries have been established and horticulturalists specialising in tree farming (“tree nurserymen”) have been trained. In cooperation with a national research institute, high-quality seedlings have also been supplied and around 9,000 plants grafted. Sufficient high-quality planting material is still not available, however, particularly since there is a wait of several years before reliable statements can be made about its quality.

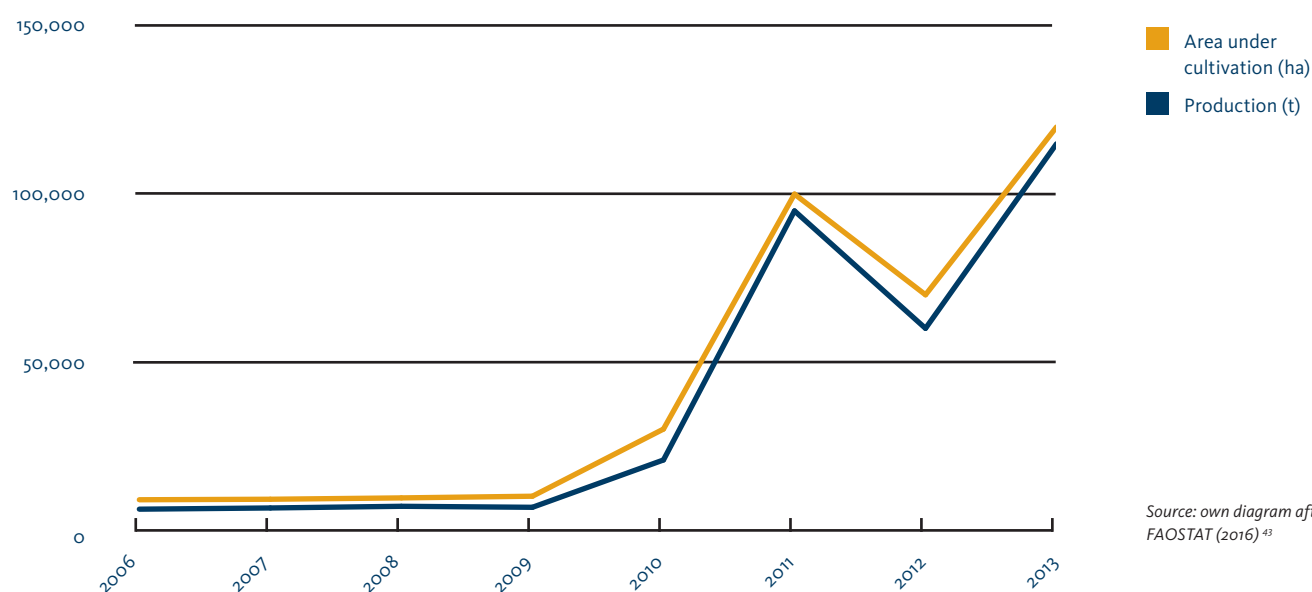
Under the heading of capacity development, employees working in processing have been trained in operational routines and occupational safety as well as quality control and hygiene standards. Productivity has been distinctly increased as a result, which can be illustrated by the processing stage of cracking the nuts: here the employees boosted their daily output from 2 kilograms of processed nuts to 10 to 11 kilograms. Through the optimisation of work processes and quality gains in primary production, the quality of the processed cashew kernels has improved. In the interviews this was underscored by the comment that the rejection rate in processing had decreased noticeably, and that fewer quality complaints were being expressed by customers in the meantime. In addition it was emphasised that the improvement of primary production had created the necessary preconditions for fulfilling the required quality and quantity standards in processing.

A further capacity-development activity by the ACi is addressed to actors of the entire value chain: a “Master-Trainer programme” aimed at participants from all project countries and all stages of the chain is being delivered via the programme. In three

one-week seminars plus supported self-study research and training units, the participants acquire a comprehensive knowledge of the cashew value chain: from the structure of the chain and the market, through cultivation and processing techniques, to didactic and economic knowledge and understanding. The comprehensive training they receive equips them to run training courses themselves. In this way a pool of experts is being created who contribute to professionalisation and networking within the chain. In the interviews, participants confirmed the great benefit of the programme for their work and underlined that they had made valuable contacts with actors from different segments of the value chain and in different countries. The programme is now running for the third time. Of the 14 persons from Burkina Faso (out of a total of 60 participants) who attended the first training in the years 2013/2014, 12 are still actively working in the cashew value chain. The trans-regional learning concept permits a rapid transfer of comparative advantages. For example, improved planting material from Ghana is in demand in Burkina Faso as grafting stock.

Final assessment of the promotion

Based on the promotion of the cashew value chain, clear positive results were achieved in Burkina Faso. Thanks to the activities, cashew is increasingly being cultivated, whilst the productivity of plantations and the quality of the nuts has successfully been raised. The impact in terms of gains in production since the start of promotion in 2009 is supported by FAO figures on total domestic production (see Figure 7).

Figure 7: Production of cashew raw nuts in Burkina Faso

Consequently, the share of producers' household income contributed by cashew nuts has increased. This income potentially also has an effect on food security, particularly since the sale of cashew kernels takes place in the agricultural low season. Hence, the revenue can be spent on acquiring foods and agricultural inputs for the next farming season, or to meet other expenditures on daily needs (such as health and education). Whether the revenues from the sales, which are predominantly handled by men, are actually used in this way could not be verified, however. Rises in quality and productivity boosts continue to be achieved in processing as a result of the promotion. Processing capacity was increased tenfold within five years, from 700 tonnes in 2009 to 7,800 in 2014. According to data from the ACi, in this way 2,050 jobs in processing have been created so far, the majority of which provide employment for women.

The structure of the ACi promotion model is noteworthy: as a trans-regional programme that is active in several countries, the promotion provides special potential for

synergy effects and broadscale impact. By involving private and public partners and by means of the financing instrument of the Matching Fund, several bottlenecks continue to be tackled effectively, from which various target groups are benefiting. The considerable financial volume of the ACi makes extensive promotion activities possible; in this way an impressive number of smallholders can be involved. Nevertheless, price fluctuations represent a major risk to the success of the promotion. Due to the drastic rise in the global market price in the year 2015, a large share of local cashew raw nuts were bought up by foreign traders at considerably higher prices than local processors were able to pay. Although the producers who had previously been trained and in some cases supported with agricultural inputs could achieve very high profits in this way, they failed to honour around half of the agreed deliveries to locally-based processors. Consequently the bulk of employees in processing lost their jobs (at least temporarily) and the subsequent value creation of the chain was generated outside of the country.

⁴³ The FAO figures diverge from those of the ACi on yields in particular. According to ACi, 35,000 tonnes of raw nuts were produced in Burkina Faso in 2015. The area under cashew production was approx. 135,000 ha. The discrepancy presumably arises from the fact that the FAO assumes higher yields per hectare than those calculated by the ACi on the basis of its own yield study.

5.2

Country survey: Ghana

In the World Bank's classification, Ghana belongs to the group of "lower middle income economies". In the 2014 Human Development Index⁴⁴ it is ranked in place 138 (out of 187 countries assessed), in the "Medium Human Development" category. The country has been politically stable for a few decades and has been able to demonstrate strong economic growth since the beginning of the current century. Between 2000 and 2014 the country's per-capita gross domestic product rose from 265 to 1,443 US dollars (Germany 2014: 47,627 US dollars), with an average annual growth rate of 6.4 per cent (World Bank, 2015b). Ghana has a total population of 26.8 million and a population density of 118 inhabitants per km². In 2014 its annual population growth stood at 2.4 per cent (World Bank, 2015b).

This considerable economic growth can be seen as the result of successful economic policy. However, the country's economic development is impeded by its inadequate technical infrastructure. A particular issue is the energy supply, which has largely been covered reliably by hydropower plants until now, but can no longer keep pace with growth. Because of this, large parts of the country are frequently affected by power cuts, which are detrimental to economic development.

Although the significance of the agricultural sector is declining, in 2014 agriculture still accounted for a 20 per cent share of total economic output, and until 2010 it was still employing over 40 per cent of the population, mainly in the form of smallholder subsistence farming (World Bank, 2015b). Ghana has a land area of 238,540 km², of which 69 per cent is used agriculturally (World Bank, 2015b). Alongside the traditional export products like cocoa or rubber, for the last few years there have been increasing exports of crops like pineapple, bananas or shea nuts (or shea butter).

According to the findings of the most recent national household survey, conducted in 2012/13 (Ghana Living Standards Survey), the proportion of people living in poverty⁴⁵ stands at 24 per

cent, which equates to 6.4 million inhabitants (Ghana Statistical Service, 2014). In contrast, the previous survey from 2005/2006 recorded a level of 31.9 per cent (Ghana Statistical Service, 2008). With reference to national poverty lines, 8 per cent of the population (around 2.2 million inhabitants) are classified as extremely poor, and hence as food-insecure. They have disposable income of less than 1.10 US dollars per day, which is not sufficient to meet an adult's average daily requirement of 2,900 calories.

While the rural population makes up some 50 per cent of Ghana's total population, 78 per cent of the poor live in rural regions (Ghana Statistical Service, 2014). Moreover, strong regional divergences are seen in Ghana's patterns of poverty and food security. Thus, the proportion of poor people stands at 20 per cent in the south, but 63 per cent in the north (WFP and MOFA, 2012). While food insecurity is not a significant issue in southern Ghana, the World Food Programme has classified 16 per cent of households in northern Ghana as "severely" or "moderately food insecure" (WFP and MOFA, 2012). For almost all poor households, maize is the most important staple food, alongside millet.

Against the backdrop of a largely stagnating agricultural sector, in 2007 the Ghanaian government launched a new Food and Agricultural Sector Development Policy (FASDEP II). It pursues two objectives: supplying the population with staple foods, and modernising and commercialising agriculture. Important fields are improved access to regional and international markets, increasing value creation through processing, quality improvement and the organisation of production and marketing, e.g. through contract farming. The Medium Term Agriculture Sector Investment Plan (METASIP) for the period 2011 to 2015 sets out to regulate the implementation of FASDEP II and organise the financing. It aims to involve a majority of agricultural micro-enterprises in the modernisation of agriculture. The plan emphasises the special significance of the private sector for the modernisation of agriculture. As part of one programme component, the Market Oriented Agriculture Programme (MOAP; see below) is advising the Ghanaian government on the implementation of the METASIP.

⁴⁴ An annotation on the Human Development Index can be found at the beginning of the Burkina Faso country survey (Section 5.1).

⁴⁵ The poverty line was set at a daily disposable income equivalent to 1.83 US dollars. Thus, the figure is comparable with the World Bank's poverty line (1.90 US dollars/day)

Ghana is a priority country of German bilateral development cooperation. Priorities of this development cooperation are the areas of decentralisation, promotion of agriculture, and sustainable economic development (BMZ, 2015). Renewable energies may additionally be included. These priorities were confirmed during the government negotiations in 2015. The commitments for the years 2015 to 2018 amount to 74 million euros in total for bilateral development cooperation.

The MOAP programme

Alongside a few trans-regional activities in the agricultural sector, since 2004 there has been a development cooperation programme for the promotion of market oriented agriculture, the Market-Oriented Agriculture Programme (MOAP). Currently the programme is in the fourth phase of promotion (2014 – 2016). Over the entire programme period, the support from German development cooperation amounts to just under 73 million euros. The programme partner is the Ghanaian Ministry of Food and Agriculture (MoFA). GIZ, KfW and PTB are commissioned with the implementation. The overarching programme objective is the promotion of sustainable and broadscale economic growth in the programme regions. The following serve as indicators for the achievement of the programme objectives:

- increasing yields (including reduction of post-harvest losses),
- improving food security (availability, access and stability) for the maize value chain,
- increasing of export revenues for the value chain with export potential,
- increasing private investments in storage structures for grains in Brong Ahafo,
- increasing employment and boosting the proportion of employed women,
- growth in real income through the sale of agricultural products that are financed by the Outgrower Value Chain Fund (OVCF), and
- increasing the credit volume for the agricultural sector.

The MOAP is subdivided into three fields of action:

- 1) supporting selected value chains (by promoting contract farming and better access to financing, among other means),
 - 2) supporting/advising state institutions and
 - 3) supporting/advising relevant organisations in the private sector.
- In the current phase, the promoted value chains are maize, pineapple, mango, citrus fruits and rubber. The regions of Brong Ahafo, Volta, Central and Eastern Region form the geographical focus. The focuses of activities for promoting value chains consist of promoting access to means of production, promoting agricultural production and processing, promoting marketing and trade, and promoting the financing of value chains.

The programme is also represented by members of staff in the respective regions, and is docked onto the regional governmental structures. The said staff consist of the GIZ coordinator for activities in the region as well as a Value Chain Officer who is provided by the Ghanaian Ministry of Food and Agriculture (MoFA).

5.2.1 Case study: Maize value chain

Maize is one of Ghana's most important staple foods. It is grown in the transition zone between the more humid regions in the south and the more arid Guinea Savannah in the north, in Brong Ahafo, parts of Ashanti, and in the three northern regions, almost exclusively by smallholder farmers. In this transition region there are two rainy seasons and therefore two harvests per year, whereas in the north, where there is only one rainy season, only one harvest per year is possible. On average, smallholder households consume more than 40 per cent of maize production themselves, which is evidence of the great significance of maize for food security. After the harvest, the maize has to be peeled, husked and brought to a moisture content of 13 per cent. In a few cases the drying is carried out with the help of mechanical or solar dryers, but simple air-drying is most common. The next stage is to crush or mill the maize, and then to process it into various products; among other things, it is used for making the Ghanaian national dish *banku* (dumplings made from maize flour, sometimes combined with manioc flour). Further uses of maize are as a baby-food ingredient, as a feedstuff for poultry, and in beer production.

Women assume an important role both in production and trade. In production, women smallholders farm their own plots; in trade, women tend to operate small businesses whereas wholesale trading in maize remains predominantly in the hands of men. Ghana's largest and most important maize market is in Techiman, in the centrally located region of Brong Ahafo. At this market, maize is sold on by wholesalers from all over the country, bought up by foreign traders, and transported to neighbouring countries, such as Burkina Faso, or sold directly in small quantities.

Maize production and processing in Ghana has to contend with numerous bottlenecks. On the producer side, a particular issue to be mentioned is low productivity. According to figures from the regional government in Brong Ahafo, the yield per hectare rose only from 1.69 to 1.88 tonnes between 2001 and 2013, while the area of land under maize cultivation rose from 104,500 to 247,700 hectares during the same period. In other words, increases in production have come almost exclusively from taking additional land into cultivation. The poor productivity is caused by failure to make sufficient use of improved seed coupled with the use of inappropriate cultivation methods. Moreover, the producers have only limited access to fertilisers and other inputs as well as technologies for mechanisation. Their access to financial services is equally restricted, so that their options for improving production are severely constrained. A further challenge both on the producer and trader levels is the often poor quality of the maize sold on the market. The prime cause of this is air drying on unprotected sites. This not only results in contamination of the maize with foreign bodies (e.g. stones, insects), but it also frequently fails to achieve the desired low moisture content of 13 per cent, in which case

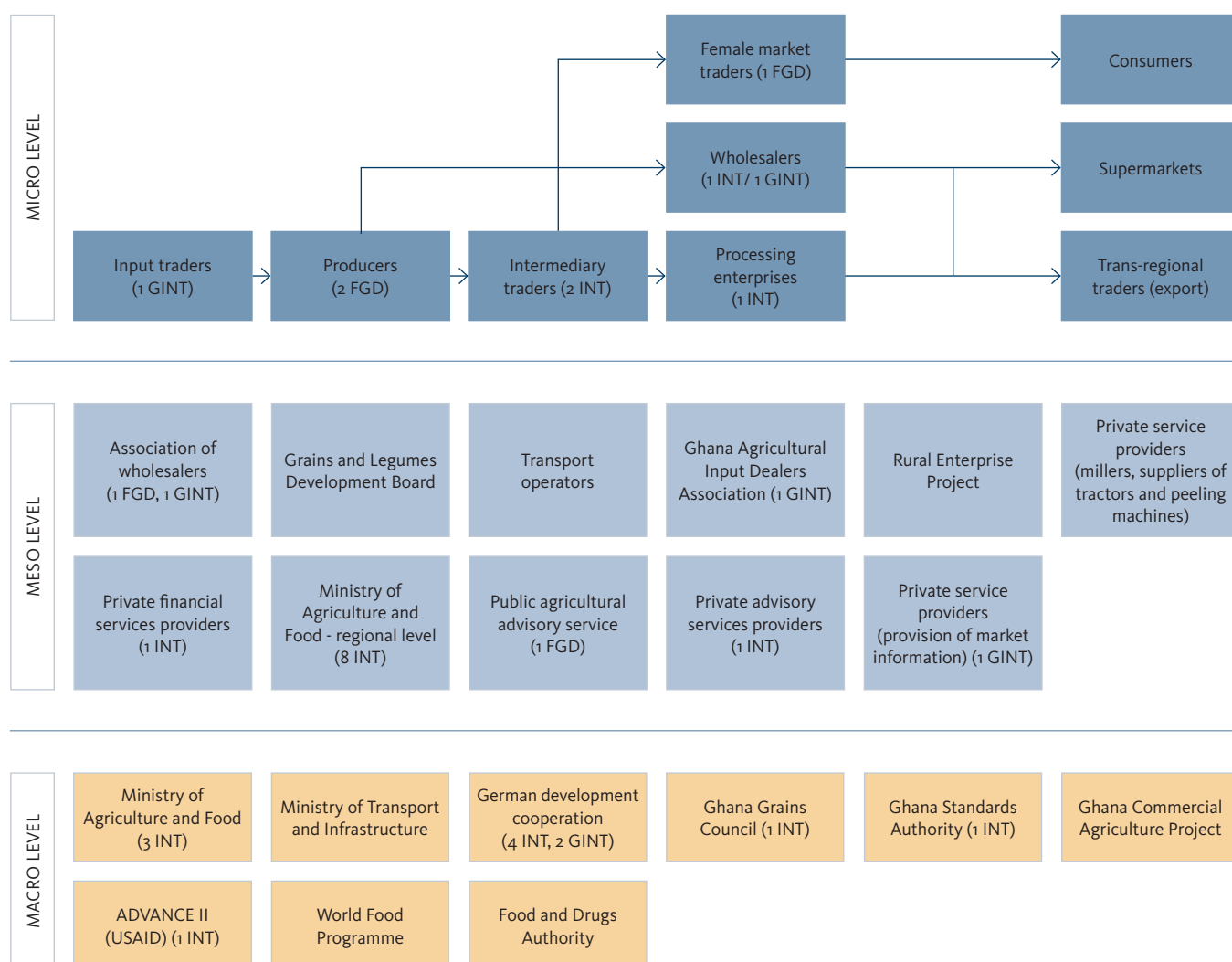
hazardous aflatoxins can form. The kind of drying facilities mentioned further above are not generally available. However, prices in the market do not reflect quality differentials, either; producers thus lack the incentive to produce higher quality maize. For a few years there have been national product standards for maize, but as these are still relatively unknown, they are not being put into practice as yet. The problems of moisture content are especially relevant in the transition region in which the MOAP is also active. Producers here do not always succeed in drying maize adequately after harvesting and before the next rainy season sets in.

With a view to market-oriented production and the functioning of the value chain, further bottlenecks to mention are the producers' poor entrepreneurial skills. This is not just a matter of lacking knowledge; often the producers do not see their farms as optimisable businesses. Another problem is the poor organisational structure of the producers' and traders' associations.

Constellation of value-chain actors

Out of all Ghana's cash crops, the maize value chain employs by far the largest number of small and poorer producers and traders. After harvest the maize is dried by the producers, although in some cases traders take on this task. The maize is often peeled by service providers who have peeling machines for the purpose. Traders (known as aggregators) collect the maize from the farms and transport it to the market or directly to the larger end-buyers. From the markets, the maize either goes to the final consumers or to wholesale purchasers like schools, food-producing enterprises, animal-feed producers, breweries, supermarkets, or the World Food Programme.

Figure 8: Constellation of actors in the maize value chain in Ghana



Important service providers for the chain apart from the peelers are the traders in fertilisers and other agricultural inputs, millers, transporters, financial institutions and the state advisory service providers. The producers in the maize chain are organised in farmer-based organisations (FBOs). The wholesalers at the market in Techiman are organised in a traders' association but its membership does not include the many small traders who are also active on this market. On the national level, in addition to the Ministry of Food and Agriculture (MoFA) other important bodies are the Ghana Grains Council and the Ghana Standards Authority. The two organisations play an important part particularly in the development and dissemination of national product standards.

Alongside German development cooperation, the United States Agency for International Development – USAID, in particular, is active Ghana's maize sector. Its most important activities in this area are the distribution of improved seed through the Ghana Advanced Maize Seed Adoption Program – GAMSAP and the promotion of value chains via ADVANCE II (Agricultural Development and Value Chain Enhancement). It became clear in the interviews that there is no cooperation at all between MOAP and USAID in the maize sector. Finally, mention can also be made of the Ghana Commercial Agriculture Project, which is financed by the World Bank and USAID and implemented by MoFA. The objective of the project is the modernisation of agriculture by building stronger links between firms and smallholders. Maize and rice are an element of the promotion, in order to ensure self-sufficiency in these two staple foods.

Programmes

At the request of the development partner (MoFA), the maize value chain has been promoted in Brong Ahafo since 2010 within the framework of the MOAP, in order to strengthen food security. Since then the programme has concentrated on the post-harvest stage. Production is not included since this is being addressed by other donors⁴⁶ and the government. Support for the chain is being provided in the form of a structure-oriented approach on multiple levels. Target groups in the maize value chain are the members of the producers' organisations as well as small traders, including those operating informally. These are represented nationwide, but are particularly concentrated in the project region Brong Ahafo. Although primary production

is not included within the scope of the promotion, the producers are named as a target group because many of them – as already mentioned – are also responsible for processing, and hence integrated into the promotion. The maize chain is credited with special potential for poverty reduction because the development of the grain sector could give rise to additional income-earning opportunities in production, post-harvest management, transportation and trade for poor strata of the population. The promotion of maize can also be expected to have major implications for the situation of women – around 40 per cent of the approximately 400,000 producers in the project region are female, and the role played by women in the trade is also becoming important. In 2012 the project carried out a gender analysis for the maize value chain.

Promotion activities

In order to improve their market access and strengthen their negotiating power, the traders and a small number of producers received programme-financed access to ESOKO for around two years (up to the start of 2013). ESOKO is a firm which enables its contract partners to retrieve and exchange market information (prices, weather information, agricultural advice, etc.) via smartphones and mobile telephones (cf. also UNDP, 2010).

A key MOAP activity to improve market access for the maize chain is certainly the financing of a study for the reconstruction of the maize market in Techiman; it is hoped that the new structure will significantly optimise trade and working conditions at the market. Since the new building had not been completed at the time of the case study, no impacts in these areas could be recorded. This activity was not therefore included in the case study.

For the strengthening of organisational development in the maize chain, three central activities were identified: (1) training courses on organisational development with the traders' association, (2) training courses on organisational development with FBOs and (3) the founding of a value-chain committee. The training courses with the traders' association were intended to strengthen its organisational structure and improve trust among the members. They were organised mainly for the Board and selected members. The implementation period was the second half of the year 2014, so long-term monitoring of

⁴⁶ ADVANCE I was active in maize production in Brong Ahafo, but withdrew from the region in 2011 in the wake of the USAID Feed the Future strategy so as to concentrate on the northern regions.

effectiveness was not possible. At the time of the case study, i.e. in May 2015, the training courses were receiving fundamentally positive evaluations. The traders reported progress in relation to both bottlenecks. The organisational structure had improved; there were more regular meetings, and cooperation and trust among the members had intensified. On the individual level, too, improvements were being reported as a result of the training contents on entrepreneurial skills. One negative point to note is the fact that the small traders on the market are not members of the traders' association and do not therefore benefit from the activity. Nor were any alternative activities offered for this group.

Advisers from the state advisory service also took part in the training on organisational development for the FBOs. The training was embedded in additional training courses on financial management, quality management, etc. It was confined to the FBOs responsible for the management of the two solar dryers that were provided within the framework of the value-chain promotion (see activities in IA4). The responses on the effectiveness of the training were mixed, which may partly be due to its having been delivered in conjunction with other activities. In isolated cases, improvements in quality management were reported, but it seems likely that mix-ups with other programme components occurred here. As a positive outcome, greater participation of women in the decision-making process was mentioned in isolated instances.

As the third activity to strengthen organisation and cooperation within the chain, a regional value-chain committee (VCC) was brought into being in 2011 as a central exchange forum for the actors of the maize value chain. It meets every three months in Sunyani, the capital of the region. At the time of the case study, the entire organisation of the VCC (such as setting dates, sending invitations) was still being performed by the programme. Furthermore the MOAP was paying transport and per diem allowances to the actors. Because of the focus on the post-harvest stage, up to that point the producers had been excluded from the VCC, but at the time of the case study there were plans to integrate this group in future. The participants reported that cooperation had improved because of the VCC; nevertheless, a certain mistrust still prevails among the actors,

so that there is still a need for improvement in this area. It was mentioned by MOAP staff that the VCC only continued to exist thanks to the support provided by the programme.

To improve access to technologies, as mentioned above, the programme provided two FBOs with a solar dryer each in 2013. The materials were made available via the MOAP while the bulk of the work was carried out by the FBOs. The dryers are capable of bringing maize or other products to the desired moisture content in a shorter time than by air drying, whilst at the same time protecting it from contamination with foreign bodies. The management and maintenance has been placed in the hands of the FBO. Non-members can also use the dryers in return for a fee. It was reported in the interviews that one of the dryers (in Bonsu) is too small and, what is more, lacks an adjacent storage building, so that many members of the FBOs are still drying their maize on the ground. It was likewise mentioned that because of the dryer, the maize was now of a better quality. Nevertheless, it is obvious that the dryers are not being utilised and serviced appropriately. The missing sense of ownership of the donated technology was confirmed by the MOAP. The provision of the two dryers was set up as a pilot project. Its lack of evident success may be one reason why, up to the time of the case study, no additional dryers had been provided.

Access to agricultural advisory services is a major challenge in the region. Therefore the MOAP carried out training courses in 2013 and 2014 for the advisers from the state advisory service. They dealt with post-harvest methods but also aspects like book-keeping, marketing and financing. The training courses were perceived as helpful, with a special emphasis on the aspects concerning promotion of the value chain. The advisers are now supporting the producers better on value-chain-specific themes, and helping to establish or improve contacts between them and other actors in the chain. Improvements in relation to maize storage and quality were reported; here it is not clear, however, whether these are specifically attributable to this intervention. A fundamental problem that was tackled only very marginally by the intervention is the low number of advisers, compounded by a lack of transportation. This means that not all producers in the region can be reached appropriately.

Finally, also in 2013 and 2014, workshops on financial management were offered for both producers and traders as an element of a larger package of diverse training activities. In the interviews, no specific impacts resulting from this intervention could be recorded.

Alongside low productivity, the unsatisfactory quality of the maize is a further bottleneck in the value chain. MOAP promoted product quality within the maize chain by means of three activities: 1) training courses on quality, 2) the development and dissemination of a national product standard for maize, and 3) the provision of hygrometers. The programme organised training courses on quality assurance and on the national maize standard at producer and trader level. The training courses were carried out in 2014 by the Ghana Grains Council and reached around 200 actors in Brong Ahafo. Furthermore, training materials were supplied as posters. The trainings were assessed as very good but not sufficient. The traders suggested providing these training courses for a larger group of producers in order to address existing deficits in quality management. Essentially, there is now improved awareness of the significance of quality and the necessary knowledge for increasing maize quality, and the traders are now approaching producers with higher expectations in this regard. As a result, the quality of the available maize has increased and the traders are selling more, because thanks to the better quality there are new buyers who had previously resorted to other – foreign – markets. Nevertheless, further improvements are necessary: there is a lack of technologies (e.g. dryers) for delivering the desired quality, and the market prices do not yet appropriately reflect differentials in quality.

The product standard was developed or adapted by PTB in collaboration with the Ghana Standards Authority and the Ghana Grains Council. The Ghanaian partners described the support from German development cooperation as very helpful for the development of the standard. A great deal of public relations work remains to be done, however, in order to publicise the standard nationwide. Also, the sacks in which the maize is transported are still not clearly labelled, even though this would distinctly improve transparency in the market.

The provision of four hygrometers – to the traders' association, to the two FBOs that are also responsible for the management

of the solar dryers, and to one wholesaler (aggregator) in the region – has shown only little impact, since the actors still prefer to rely on haptic and visual checks, and the devices are not being used.

Final assessment of the promotion

The activities carried out by the MOAP for the maize value chain are tackling relevant bottlenecks in the chain. The focus of the promotion is on quality aspects as well as activities to improve exchange among actors. At the time of the case study, the promotion was restricted to a few isolated cooperations – two FBOs, one traders' organisation and a wholesale trader (aggregator) were being promoted. Owing to the neglect of producers, however, not all the relevant actors were being included; the low productivity in primary production has been left off the agenda so far. There is also a further reason why it is hard to assess the effectiveness of the promotion: most of the activities were only carried out after 2013, so that long-term monitoring data is not available.

The access to ESOKO as a market information system was used by the actors only for the period of time that MOAP took care of financing it. Hence it can be concluded that ESOKO was not hugely significant for the actors and their activities in the maize chain.

The training courses for the traders and the FBOs as well as the founding of a value-chain committee were viewed by the actors as helpful. The organisation of the FBOs and the farmers' association has improved, and decision-making processes and organisational structures have become more transparent. Trust has grown between the various links in the chain. However, the sustainability of the promotion activities is jeopardised by the lack of ownership on the part of the actors.

Likewise the solar dryers and the hygrometers were seen as helpful for bringing about improvement of product quality. But here, too – specifically with regard to the solar dryers – the absence of ownership jeopardises the sustainability of the intervention. The pilot study on the solar dryers showed no sign of any broadscale impact; the provision of further dryers would be possible on request, yet up to the time when the case study was carried out, no further FBOs had made contact with that intention.

The training courses for the advisers from the state advisory services were rated as excellent by participants. Their discussions with producers now extend beyond agricultural production methods to include economic aspects like financing, book-keeping and marketing. The advisers could be a significant factor in achieving a broadscale impact with this intervention, but they are reportedly too few in number to perform this task effectively.

Cooperation between GIZ, PTB, the Ghana Grains Council and the Ghana Standards Authority on the development of the national product standard for maize was very successful. The activity contributed to the effective drafting of the national standard and, to a certain extent, also to its dissemination. Despite this, further efforts are still necessary to familiarise actors in the value chain with the standard. Moreover, the helpfulness of such a standard is quite limited if the means of production necessary to produce good quality are simply not available. And finally, at present, prices only reflect quality differentials in a limited way – and whereas large aggregators are prepared to pay a higher price for good product quality, the same is not (yet) true of end consumers.

5.2.2 Case study: Pineapple value chain

The global market has registered a rapidly growing demand for pineapple over the past few years (Kleemann, 2011). Today the greater part of the international pineapple sector is dominated by large transnational firms. Because of their lower profitability, smallholders only account for a small share of the total volume of pineapple production (Kleemann, 2011).

In Ghana, pineapple is produced both for the domestic market and for export. Whether the crop is destined for the national or the international market is determined principally by the variety. The most important variety for export is “MD2”, whereas the local market is chiefly served with the variety “Sugarloaf”. In addition, many enterprises produce “Smooth Cayenne”, which is grown both for export and for the domestic market. Pineapple ranks as one of Ghana’s most important non-traditional agricultural export products (Sutton and Kpentey, 2012; Gatune, 2013). Hopes are vested in the pineapple sector to position itself in the international agricultural markets through

sales and processing of export-oriented Ghanaian products. The most important export market for some considerable time has been the European Union (Gatune, 2013). The key export products are fresh, sliced and dried pineapple. Beyond this, fruit juices are also produced for the domestic market. Although pineapple is chiefly marketed as a fresh product, the chain provides diverse employment opportunities at all stages, not just for smallholders but also for unskilled workers.

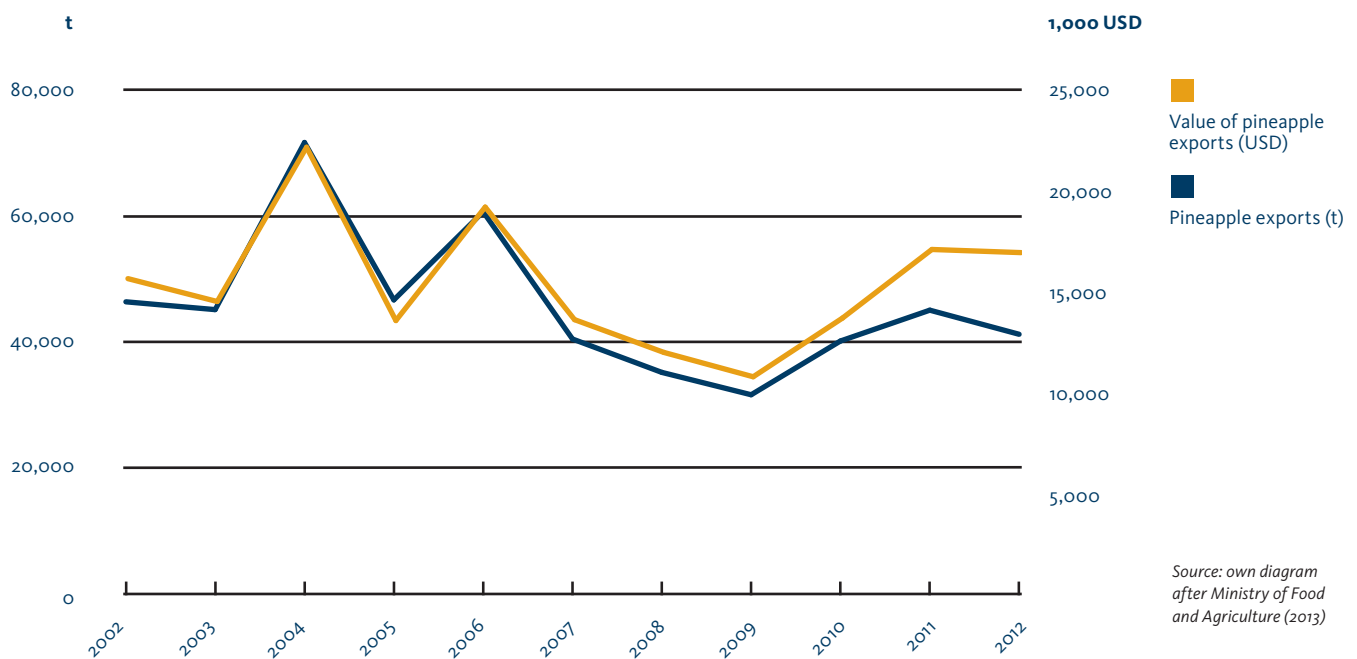
Around the turn of the millennium, the export-oriented Ghanaian pineapple sector registered remarkable growth rates. In the year 2004 the country had a market share of ten per cent of the EU market for fresh pineapple, with a total export volume of 71,000 tonnes (Gatune, 2013). From 2004 onwards, exports of fresh pineapple began to decline sharply (see Figure 9). This can largely be explained by a shift in global market demand towards the variety MD2 in preference over Smooth Cayenne (Gatune, 2013; Whitfield, 2012). Quality attributes of MD2 are its sweet flavour, its low acidity and its high vitamin C content. In the course of the transition to MD2, European traders increasingly demanded higher quantities, higher quality and a constant supply (Whitfield, 2012). The transition posed major challenges for the Ghanaian pineapple sector, which was geared towards low production costs and comparatively low sale prices. Smallholders in particular were unable to cope with transition to the more labour- and capital-intensive variety MD2, and many of them ended up leaving the sector.⁴⁷ Consequently exports collapsed. In 2012 the annual export volume amounted to just 41,000 tonnes (MoFA, 2013). At the same time, the number of export firms declined between 2004 and 2012 from 50 to 14 (Gatune, 2013).

Ghana’s pineapple sector lacked sufficient capacities to respond to the change in global market demand, and its seed and fertiliser firms, producers and export firms had little knowledge about the new technology (the introduction of MD2). These factors, coupled with insufficient access to planting material and other agricultural inputs, proved to be huge challenges for the actors in the previously export-oriented pineapple sector, and are still a hindrance to the full exploitation of its comparative advantages today.⁴⁸

⁴⁷ Whitfield (2012) explains that prior to the start of the crisis, in addition to 12 larger enterprises (300 to 700 ha) and 40 medium-sized enterprises (20 to 150 ha) there were around 10,000 smallholders, almost all of whom initially left the export sector.

⁴⁸ Along with Central America, West Africa offers favourable climatic conditions for pineapple production. Ghana has the added advantage – e.g. compared with Senegal or Côte d'Ivoire – of being relatively well connected to international air and sea freight routes. Furthermore, Ghana has been a liberalised market for some decades now, which has enabled competitive prices in the past (on this, cf. Danielou and Ravry, 2005).

Figure 9: Ghana's pineapple exports 2002 to 2012



Constellation of actors in the value chain

The Ghanaian pineapple sector is characterised by a diverse constellation of actors. Apart from the producers, primary production is characterised by trade in agricultural inputs and direct marketing at local markets or in central locations (see Figure 10). In the next stage after primary production, small supply enterprises take charge of transportation, mainly to micro-enterprises or small and medium-sized enterprises (MSMEs) operating in processing and in the fresh fruit export sector. In addition, there are a few large companies with several hundred employees which influence the structure of the sector, principally in the export segment. On the meso level, the pineapple value chain is mainly distinguished by associations and umbrella organisations with a relatively high degree of organisation. On the macro level, alongside the development partners there are several national authorities with an influence on the chain.

Producers have constituted a key target group since the start of promotion by Ghanaian-German development cooperation. According to the most recent Ghana Living Standard Survey around ten per cent of the rural population of Ghana produces pineapple (in this regard cf. especially the calculation by Diao, 2010; Ghana Statistical Service, 2014). The recorded number of market-oriented pineapple producers varies depending on source, and is distinctly lower, with absolute values of around 3,000 to 5,000. The most important buyers of the primary product are local processing enterprises or export firms, a few of which also produce pineapple themselves. In Ghana pineapple is predominantly cultivated in the coastal regions in the south of the country, a zone known as the “pineapple belt”. While these number among the most highly populated areas, they only account for ten per cent of the land in agricultural use (Ghana Statistical Service, 2008). The households in the southern regions have comparatively small farm sizes, and their agricultural earnings account for a minor share of total household income (Ghana Statistical Service, 2014).

According to the findings of baseline studies carried out in 2008 by Ghanaian-German cooperation in Ghana's Central Region⁴⁹, on average agricultural enterprises make use of around 1.4 hectares, and hence around 50 per cent of their total area, for pineapple production. Production is predominantly headed by men aged over 40, the majority of whom (> 60 %) have more than five years' experience in the cultivation of pineapple. Women are more likely to be found as employees in processing enterprises. The majority of land is leased⁵⁰ or family-owned. Almost all producers are affiliated with product-specific unions⁵¹, most of which have between 30 and 100 members. Not all these unions are reached by the state advisory services.

Beyond subsistence production, many enterprises engage in local marketing, i.e. the fruits are usually passed through the hands of market women and sold directly to Ghanaian consumers at the nearest market. Additional direct marketing takes place in the form of street trading along the major highways. Sale to processing enterprises is another of the possible marketing channels. In most cases this takes place through intermediary traders. In some cases, however, the enterprises buy up the crop and collect it themselves. The bulk of processing is subdivided among micro- and small enterprises, which chiefly produce for the local market and are organised in the Fruit Processors and Marketers Association of Ghana (FPMAG), and medium-sized to large export companies, most of which belong to the Sea-Freight Pineapple Exporters of Ghana (SPEG) association.⁵²

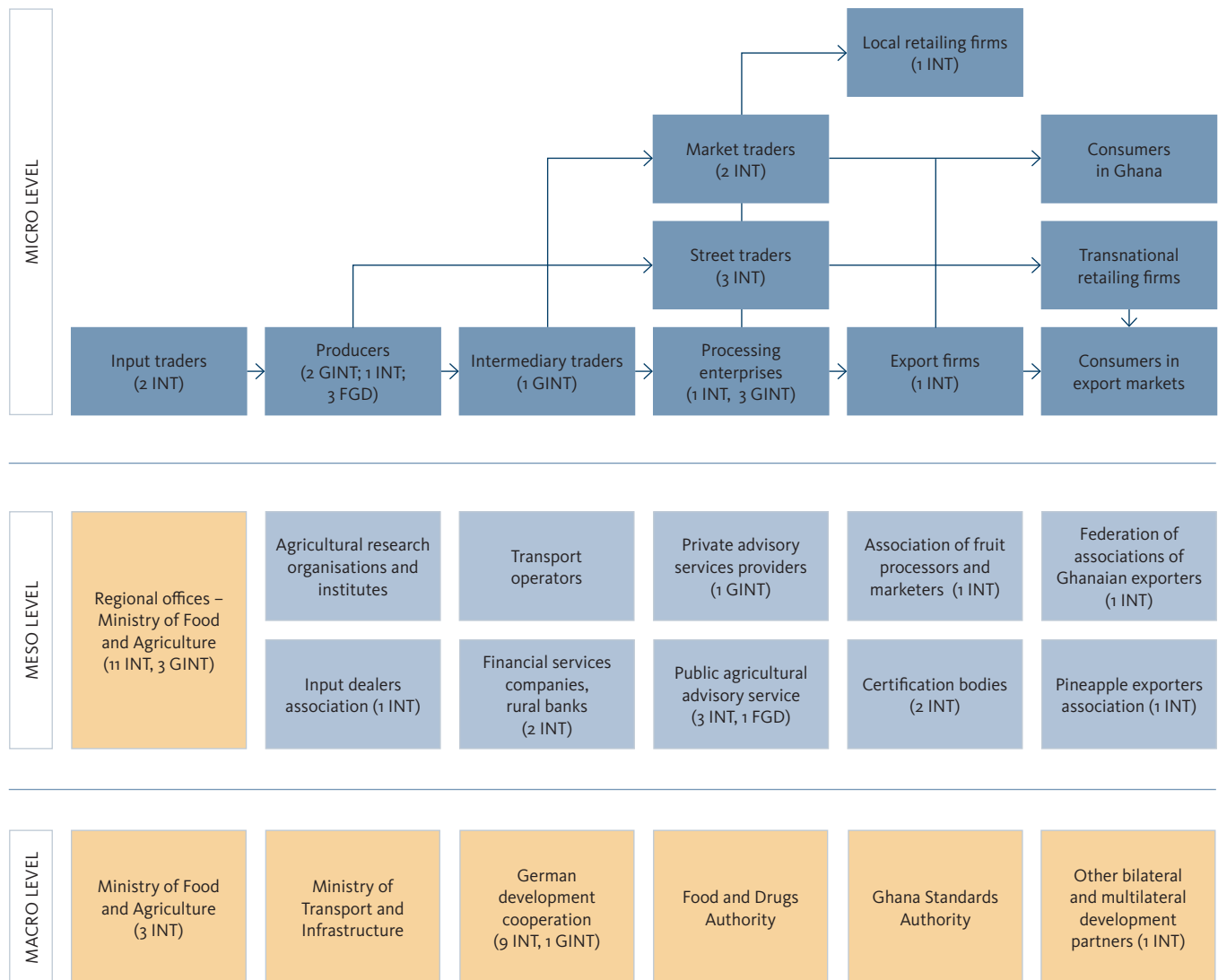
⁴⁹ The baseline studies were conducted in the Central Region in the districts KEEA and Mfantseman, i.e. districts in which the present case study was also carried out. For the studies, 105 (KEEA) and 50 (Mfantseman) producers were selected by randomised sampling and interviewed on the basis of a standardised questionnaire.

⁵⁰ According to the baseline study, lease contracts largely take the form of verbal agreements.

⁵¹ Farmer-based organisations (FBOs)

⁵² In 2015 some 60 enterprises belonged to the Fruit Processors and Marketers Association of Ghana. 23 mainly export-oriented enterprises formed the Sea-Freight Pineapple Exporters of Ghana association.

Figure 10: Constellation of actors in the pineapple value chain in Ghana



On the meso level, apart from the associations and umbrella organisations of the processing enterprises, there are also associations of agricultural inputs traders, agricultural research organisations and institutes of the state universities, public and private advisory service providers, private financial services providers, and transportation companies in a few instances. A special role is played by the value-chain committee that was brought into being by Ghanaian-German development cooperation and unifies a large number of local actors in the value chain.

The macro level encompasses the state actors from the Ministry of Food and Agriculture, the Ministry of Transport and Infrastructure, the Ghana Food and Drugs Authority and the Ghana Standards Authority as well as the actors of Ghanaian-German cooperation, including the German implementing organisations and other (international) development partners in the Ghanaian agricultural and food sector.

Programmes

Promotion of the pineapple value chain by Ghanaian-German development cooperation operates within the framework of the Market Oriented Agriculture Programme (MOAP). Because of the high market economic potential and the diverse employment opportunities at the lower stages of the value chain, this chain has been supported by the programme ever since 2004. Initially the cooperation concentrated on districts in the Central Region, before it was extended to some further districts in the Volta Region. Additional cooperation with USAID in the Eastern Region came about in 2006. From 2008 it can be assumed that the pineapple chain was receiving comprehensive support. The most intensive promotion took place in the third (2010 to 2013) and fourth (2013 to 2016) phases of the programme.

Overall, the support for the pineapple value chain consists of a structure-oriented promotion approach that is addressed to several stages of the value chain and is designed to reach a broad constellation of actors. Some additional firm-centric activities are also deployed. One special feature is the implementation of a develoPPP.de project with a processing export firm in the value chain, which was reviewed as a pilot case study for this evaluation (on this, see also Section 3.2.5 and Section 3.2.7).

Promotion activities

Right at the outset of the Ghanaian-German cooperation, the shortage of professional management capacities and low level of market orientation were recognised as key challenges in pineapple production. Women producers, in particular, seldom view agricultural activities as paid work that can be actively optimised to yield more income. Ghanaian-German cooperation initially targeted promotion of the private sector, flanked by the building of organisational capacities and the development of financial education, since the producers had major deficits in these areas. Apart from the producers, the main target groups of the training services consist of private trainers and the advisers from the state advisory service. On the level of producers, an unintended selection phenomenon was noted: mainly better-organised farmers' groups took part in the training courses offered.

Although the participants considered the training courses to be comprehensible and important so as to bring about the expansion and more efficient organisation of production and marketing by boosting management capacities, the taught content was only rarely put into practice. The target groups emphasised that it would be extremely rare for contractual relationships with other actors to entail any requirement to demonstrate good book-keeping.

The producers stated that systematic monitoring of costs and income was the most important element for the development of business acumen. The introduction and improvement of book-keeping leads to a "culture of saving" and good operational management, which in turn makes it possible to invest. Beyond this, good book-keeping fundamentally makes it possible to enter into contracts with processing enterprises, even if this option for vertical integration between individual members of the chain is utilised only rarely, according to their own responses.

On the level of direct development objectives, improved financial monitoring and operational management contribute to better individual negotiating power for producers. The enterprises find it easier to determine the exact timing of the harvest. At the same time they can better identify labour peaks from their records and improve their time- and labour-resource

management, and the latter can also result in reduced production costs. On the other hand, being able to determine the timing of the harvest with precision and being in a better negotiating position make it possible to achieve higher prices, so that the farmers' incomes are boosted.

Within the pineapple value chain, unsatisfactory market information systems lead to information asymmetries which impede successful market integration of the various actors. The Ghanaian-German cooperation tackled this challenge by connecting the actors to the innovative market information platform ESOKO (on this, see also the maize case study).

The producers considered the ESOKO service relevant and helpful. The high perishability of the fresh fruits and the limited availability of means of transport limit the enterprises' options for skimming off higher prices at markets in distant locations. For example, it was noted by the target groups that often prices fluctuated daily, and had been known to drop yet further before the crop was delivered, leaving the enterprises with the transportation costs. Although the use of ESOKO was greatly appreciated by the producers, not one of them continued with their membership beyond the support period (which would have required approx. 12 US dollars per year of their own money). However, a few individuals who had let their contracts expire continue to make use of the option to access information via SMS services (pay-by-demand system). Alongside ESOKO, bilateral information channels and personal networks play a major role in access to market information.

The export companies were supported in accessing new markets by financing their participation in an international trade fair, Fruit Logistica. According to Whitfield (2012) this tackled a fundamental challenge in value-chain promotion in the fresh fruit and vegetable segment: export-oriented enterprises must constantly and proactively strive for market and product differentiation in order to maintain their competitiveness. This financial support from the activity was provided between 2012 and 2014 in cooperation with the Federation of Associations of Ghanaian Exporters (FAGE).

In terms of the organisation and (institutional) development of the value chain across the spectrum of actors, key challenges are insufficient organisation and cooperation, along with poor information exchange and lack of trust. To improve the diverse relationships between the actor groups, Ghanaian-German cooperation has been supporting the establishment of value-chain committees (VCCs) since 2008. Based at regional level to begin with, these committees are composed of actors from the different groups. Their purpose is to foster the exchange of information, the identification of key challenges within the chain (e.g. with regard to training needs) and the building of cooperative action, business relationships and trust. The initiation and management of these networks was supported by the introduction of a local expert, the Value Chain Officer.

The long-standing experience now accumulated with VCCs in the pineapple chain permits highly differentiated conclusions concerning the changes initiated. On the one hand, the VCCs fundamentally succeeded in bringing different actor groups such as agricultural input traders, producers and intermediary traders together around one table; however, from the start there were difficulties in channelling their diverse interests and expectations as a basis for framing multi-stakeholder action plans. This led to a weak sense of ownership by the individual actors, and ultimately to VCCs which owe their continuing existence chiefly to external initiative.

The participants appreciate the VCCs because of the opportunities they provide to exchange information and build business relationships. A few interview partners emphasised a resultant improvement in the organisation among actors, characterised by a growing sense of trust. On the outcome level, observable effects are mainly evident in improved marketing practices. However, it also becomes clear that this chiefly stems from individual business relationships. In this regard, the "delegative principle" for participants is not practised nearly enough. The sustainability, i.e. the continuation of the VCCs beyond the support period (and coverage of their own costs), is viewed critically by almost all those interviewed. Furthermore, in the past the processing enterprises and export companies have shown little or no interest in participating in the VCCs; hence, this important group for cooperation and organisation within the value chain is barely represented on the committees.

Essentially, the producers' unions form the core actor group for boosting the productivity and quality of pineapple production in Ghana. The majority of groups are characterised by a low degree of organisation, low stability, and insufficient sense of ownership among participants. Ever since 2006 it has therefore been one of the basic endeavours of Ghanaian-German cooperation to build capacities on the level of the unions by providing training. A minimum standard of organisation and capacities are, in turn, a prerequisite for other support to be provided – on such aspects as business development, representation of interests in the VCCs, or capacity building in the groups for training courses on quality improvement or group certification systems.

According to the participants, the training courses on FBO capacity development improved the management of the groups. They highlighted the efforts made to clarify the responsibilities of group leaders and the assigned remits and representation rules, to introduce contributory and inspection systems, and to initiate group dynamics. FBOs which have implemented the key recommendations from the training courses participated in a wide range of follow-on trainings and were also, for the most part, represented in the VCCs. This only applies to a very moderate number of FBOs, however. Unaffiliated producers or those who are affiliated to poorly organised FBOs remain almost entirely excluded from participation in training courses.

As a response to the change in demand, Ghanaian-German development cooperation supported a pilot project led by the World Bank and USAID on the introduction of the variety MD2. The specific activities included developing a relevant manual for the agricultural-input traders' association⁵³, supporting training courses on cultivation, and assisting with the introduction and production of planting material and other inputs (e.g. the introduction of sheet plastic to conserve soil moisture). Subsequently, Ghanaian-German cooperation concentrated on raising quality through the introduction and dissemination of standards and (group) certification systems, especially the private GlobalGAP standard.

Thanks to the joint pilot project with the World Bank and USAID, particularly the larger market-oriented pineapple producers successfully converted to the variety MD2 on which the export sector is based today. Producers without sufficient investment capital left the sector or are still producing the varieties Smooth Cayenne or Sugarloaf, which are almost exclusively marketed in the local/national market. Accordingly, "the" pineapple value chain actually consists of two separate chains: one chain dominated by Smooth Cayenne and Sugarloaf production for the Ghanaian market, and an export-oriented MD2 chain. The two chains are merged, however, on the level of the processing enterprises, particularly local juice manufacturers.

The intensification of pineapple production, irrespective of variety, is primarily achieved by means of investments to boost land and labour productivity and to expand the areas under cultivation. In this area, the insufficient provision of financial services, but importantly also their under-use, present a major challenge. This was cited both by the users and the providers of these services. Since 2012, Ghanaian-German cooperation has therefore been carrying out workshops for commercial and rural banks on the improvement of demand-led and agriculture-oriented financial services.

In the course of the workshops, the participants were trained about the needs of and financing options for small agricultural enterprises. Participants rated the workshops with financial managers as very understandable and useful. They made use of their knowledge to develop need-appropriate financing offers, chiefly loans, and to make initial contact with potential customers. The recognition of group-based guarantees is an example of a change in awareness in risk analysis, and hence in the granting of loans on the supply side. According to the financial services companies, women's groups are considered especially creditworthy.

A further intervention to support financial provision in agriculture is the introduction of a fund for the establishment of contract agriculture, the Outgrower and Value Chain Fund (OVCF; see Infobox 3).

⁵³ Ghana Agricultural Input Dealers Association (GAIDA)

Infobox 3: The Outgrower and Value Chain Fund (OVCF)

The OVCF was brought into being in 2011 by the KfW to address the shortfall in refinancing facilities from rural banks. The first amounts were paid out in 2013. By October 2015, six value chains in Ghana had received money from the fund. In its first phase, the OVCF has over 10 million euros of assured funding at its disposal. For the second phase (from 2016) a further 23 million euros have been allocated. The refinancing principle operates with reference to a local bank which grants loans to processing enterprises, traders or exporters within the framework of a three-party agreement. They, in turn, pass on a share of the loan volume either directly (in monetary form) or indirectly (through the financing of inputs) to agricultural producers. The programme is supported by TC.

In the pineapple value chain there has been one case to date of a successful application for financial resources from the OVCF. The producers made use of the money mainly for start-up investments to expand their cultivated area and increase productivity per hectare, spending the bulk on new technologies and agricultural inputs. They rated the funding as helpful, but also stated that the per-capita amount lent was somewhat below their expectations, and also that they foresaw difficulties in servicing the annual interest rates of 21.5 per cent. From the viewpoint of the target groups, there were also unexpected delays so that the funding was not readily available at the optimum time. Other groups that have applied in the past mostly fell at the hurdle of finding a suitable bank that met the criteria of the OVCF (cf. the maize value chain, Ghana). Even though none of the parties has breached a contract as yet, time delays and unfulfilled expectations in a contractual system can lead to “side selling”, a risk that was also identified by Suzuki, Jarvis and Sexton in the pineapple sector in Ghana (cf. Suzuki et al., 2008). On the outcome level, the funding from the OVCF contributed to increasing quality and production via the borrowers’ production-oriented investments. While a few producers could maintain the increase in production achieved through initial investment, others emphasised that with the expiry of the OVCF loan they expected production to decline again on a microeconomic basis.

Insufficient quality represents one of the key challenges for the Ghanaian pineapple sector, particularly in the export segment (cf. also Fold and Gough, 2008). The major reasons include poor knowledge of good cultivation and post-harvest practices and of standards and certification options, insufficient access to new technologies, and poor awareness of the potential of high-grade products.

On the level of producers, Ghanaian-German cooperation has been promoting the introduction and implementation of the GlobalGAP standard for the variety MD2 since 2006. Alongside conceptual design and support in the delivery of training courses on “good agricultural practices” (GAP), bilateral cooperation principally supports the implementation of group-based certification systems (e.g. GlobalGAP Option 2). Because of the different suitability of the mainstream varieties MD2 (chiefly for export) and Sugarloaf (chiefly for the domestic market), in 2009 bilateral cooperation also began to offer Sugarloaf producers training courses on organic production.

Particularly in the initial phase, support for the introduction of the GlobalGAP standard was closely tied in with the cooperation with the World Bank and USAID on the pilot project to introduce MD2 in Ghana. It is thanks to these joint efforts that today, 100 per cent of pineapple exporters are GlobalGAP certified. On the level of production, fulfilment of the GlobalGAP criteria is initially succeeding thanks to the training courses on good agricultural practices. The training contents are understood by the producers and can largely be implemented. Difficulties occur with new practices which require investment capital (e.g. for the purchase of plastic sheets to conserve soil moisture). Furthermore, adherence to traditional cultivation methods is another obstacle to the adoption of new technologies. Although the target groups see the support for the recognition of group-based certification systems as effective, they perceive the annual renewal of the certificates and the associated costs as a burden, despite the fact that productivity and profits from pineapple production have both risen. There are indications that very few groups manage to meet these costs from their own efforts.

Essentially the majority of interview partners reported that the quality of Ghanaian pineapple was rising. New cultivation techniques and post-harvest practices are the main factors

contributing to quality improvement. The fact that export-oriented pineapple has to be GlobalGAP-certified (cf. also Kleemann, 2011) provides motivation for the producers, but at the same time, presents a not-insignificant barrier to entry. For the pineapples traded domestically, mainly Smooth Cayenne and Sugarloaf, there is not such a marked perception of improved quality. Only in the organic segment are improvements in quality reported. Despite considerable efforts, however, there was no group with organic certification at the time of data collection.

Higher quality fruits can also achieve higher prices. The production costs are therefore covered primarily by the sale price, and not by reducing input costs, which normally tend to rise. The adoption of good agricultural practice not only improves quality but also results in increased production. The higher land productivity is based mainly on a distinct increase in pineapple plants per unit of area. A few producers were also able to extend their total area under cultivation. Higher quality, improved marketing, higher prices and the increase in land productivity are the essential elements in order to boost the producers' income and employment.

Given the rising demand for certification, Ghanaian certification capacities reached their limits. Ghanaian-German cooperation responded with an initiative to set up a Ghanaian office of Africert, a private certification company originally from Kenya. Africert took charge of issuing certificates (particularly GlobalGAP certificates) and was also intending to train Ghanaian certifiers. However, specifically in the start-up period certification bodies from Kenya were deployed, which increased the costs. For these and other motives, the first Ghanaian general manager of Africert founded the Ghanaian certification company SmartCert in 2014. In 2015, SmartCert is employing 12 Ghanaian certifiers, who also work as freelance experts. As well as GlobalGAP and organic certification, SmartCert is also prepared to award the Ghana Green Label (GhGL), although this is still at the setting-up stage, supported by GIZ. Collaboration with Ghanaian-German cooperation takes the form that the AFC Consulting Group and the GIZ organise training courses on good agricultural practice, standards and certification, following which SmartCert takes charge of certification. In the organic segment, the joint programme funds 100 per cent of the certification costs in the first year and 70 per cent in the second year. Thereafter the full costs should be borne by the FBOs.

In the processing enterprises, Ghanaian-German cooperation supported the introduction and application of the Hazard Analysis and Critical Control Points (HACCP) concept. The training provision was delivered by a local partner. HACCP certificates or the documentation of comparable standards are the prerequisite for registration with the Ghanaian Food and Drugs Authority, which in turn paves the way for certain forms of marketing (e.g. schools, restaurants or supermarkets can only be supplied by firms that are registered with the authority). Here once again, high certification costs pose considerable challenges for smaller enterprises in particular. The latter receive continuing support – again, with promotion from Ghanaian-German cooperation – through the Fruit Processors and Marketers Association of Ghana (FPMAG).

In principle the target groups view the training courses as effective in increasing product quality, food safety and general hygiene and health standards. For the processors, the main changes are to the processes they use. Certification and registration with the Food and Drugs Authority open up options for product differentiation and improvement of sales channels.

Final assessment of the promotion

In the course of promoting the pineapple value chain over a period of a good ten years, marked successes have been achieved.

In respect of the development of the private sector, the programme contributed to increasing both the business-orientation and the management capacities of agricultural enterprises. The results in this area led mainly to an improvement in marketing. Nevertheless, there are limits to the programme's broadscale effectiveness; in particular, producers with a lower degree of organisation and market orientation are barely being reached. This is also a consequence of the inadequate resourcing of the state advisory service.

In the area of market development, it proved possible to connect producers to private market information systems. Processing enterprises and export companies were successfully promoted by means of various activities with associations and umbrella organisations. The relatively progressive network

of organisations around the pineapple value chain as well as active producer unions number among the essential conducive factors. However, not all results can be viewed as sustainable, since the given target groups only made use of existing services and institutions sporadically in the past. The value chain continues to be characterised by substantial information asymmetries, which militate against the further integration of the chain.

Organisational development and the building of business relationships are driven forward by a variety of forms of support. Alongside the important and in large part successful development of capacities in producers, the establishment of a value-chain committee proved an effective instrument for building business relationships. However, the relevance of the activities is so far confined to a relatively modest circle of actors. Important sizeable companies have only been reached to a minor extent. Above all, it is the VCC-actors' weak sense of ownership that jeopardises the sustainability of the results achieved.

In the case of the pineapple value chain, access to information and technologies was driven forward in collaboration with other development partners, mainly within the framework of a pilot project. The objective of this was the transition to a new variety in heavier demand on the global market. Larger enterprises, in particular, managed to make a successful transition to the corresponding new technology so as to continue with pineapple

exports. At the same time, parallel chains emerged and have remained differentiated ever since: one is focused on the varieties destined for the local market, while the other concentrates on the variety MD2 that is suitable for export. Smallholders are now finding their way back into production for the local market. One key obstacle to the successful integration of small producers is considered to be inadequate access to financing. The relevant promotion activities through local banks as well as through the OVCF have had only limited success in eliminating this barrier to entry.

Successful contributions to development were achieved, however, in the promotion of quality standards and certification; as a result the quality of pineapples was markedly improved. The relevant forms of support include training courses on these issues as well as access to certification. Challenges here are the low awareness of quality and standards in the domestic markets, and the sometimes high costs of certification, which further erode the relatively low profit margins.

Through the broad, structure-oriented promotion approach in support of the pineapple value chain, the agriculture sector was able to contribute to poverty-oriented development in the past few years. Nevertheless, despite the considerable commitment of time, financial and human resources, the broadscale impact of the promotion is low.



6.

INTERVENTION AREAS

This chapter sets out the results of the evaluation across the five overarching intervention areas, following the structuring principle of a *realist evaluation*⁵⁴ (see Section 3.1): starting from the bottlenecks in agricultural value chains, the key activities are introduced along with the mechanisms for change that they initiate, followed by an account of changes in behaviour and resulting outcomes. All five intervention areas and corresponding support activities have specific functions within the framework of value-chain promotion. It is worth reiterating, however, that the intervention areas are systemically interrelated; hence, the interplay between the different intervention areas constitutes the systemic aspect of value-chain promotion and is expected to bring about the overarching impact.

The analysis in this chapter is based on the findings from the portfolio review (PR) (see Chapter 4), the expert interviews (Explnt), the case studies (CS) (see Chapter 5), and from selected literature.

6.1

Intervention Area 1 – Development of the private sector

Challenges / bottlenecks

In the intervention area “development of the private sector” (IA 1), the evaluation team identified inadequate entrepreneurial skills, weak market orientation, and unsatisfactory business administration and management capacities as fundamental challenges of value chains, and therefore as aspects to be tackled by promotion (maize, rice, pineapple & cashew CS; Explnt; PR). These challenges exist mainly on the producer level but in many cases they also apply more broadly to processors, (intermediary) traders, market women, and other actors engaged in direct marketing. Across the spectrum of actors, inadequate entrepreneurial skills and weak market orientation make it more difficult to integrate the target groups into the market processes of a value chain (Explnt). One of the key causes of weak market orientation, from the viewpoint of the implementing organisations of German development cooperation, is considered to be underdeveloped

entrepreneurial thinking and action (Explnt), which can partly be blamed on inadequate resources (including know-how) and a resulting lack of options for action. Added to that, inadequate business administration and management capacities prevent the formation of long-term and stable business relationships and, from the viewpoint of the supporting environment, undermine the actors’ business credibility and creditworthiness (maize, rice, pineapple & cashew CS).⁵⁵

Inadequate entrepreneurial thinking and action also has a gender dimension, according to the case studies and the expert interviews. Particularly women in primary production rarely see agricultural activities as income-generating work that is optimisable (maize & pineapple CS; Explnt). In many contexts, moreover, it tends to be women who are entrusted with the cultivation of products for the household’s own consumption (Explnt; maize, rice, pineapple & cashew CS). Therefore, a high percentage of female producers are found in the evaluated value chains for the staple foods rice and maize due to the significance of these crops for the subsistence economy. In his studies in Ghana’s Central Region, Carr (2008) confirms a predominance of men in the cultivation of products for sale, as exemplified by the pineapple value chain. This increased market orientation simultaneously represents an increased risk, since the sale of products is subject to the price fluctuations that prevail in the markets.

Interventions and activities

German development cooperation recognised the importance of the challenges identified in Intervention Area 1 of value-chain promotion and developed specific activities to promote entrepreneurial thinking and action (PR; Explnt; maize, rice, pineapple & cashew CS). Raising the awareness of target groups about market-oriented practices, promoting the target groups’ own self-perception as entrepreneurs, and building their entrepreneurial skills and capacities are key objectives of German value-chain promotion (Explnt). Promotion activities include support in the development of strategies and the elaboration of guidelines and concrete training materials in collaboration with the development partner. The creation of training products is supported by developing the capacities

⁵⁴ For every intervention area, context-mechanism-outcome configurations are presented and discussed. The context in the narrow sense denotes the given weak points of value-chain promotion for each intervention area; the context in the broader sense also encompasses wider-ranging conducive and obstructive factors.

⁵⁵ It became apparent in the case studies, for example, that advisory and financial institutions respond to any perceived lack of creditworthiness with a poor offering of adapted advisory and financial services (see IA 4). Inadequate access to financing and technologies, in turn, makes it more difficult to put professional entrepreneurial skills into practice, even for well-trained actors (maize, rice, pineapple & cashew CS).

of public and private advisory-service providers (meso level) and is extended to the higher level (macro level), in the case of larger development projects and programmes, by contributing to strategy development and the formulation of action plans for (national) economic and export promotion (macro level; maize, rice, pineapple & cashew CS).

Interventions to develop capacities on the micro level, like book-keeping and the drafting of business plans, are intended to empower the target groups to perceive themselves as market actors and, on the basis of their skills, to become successfully involved in business activities and relationships within the value chain (maize, rice, pineapple & cashew CS; Explnt). Apart from the self-perception of the value-chain actors on the micro level, systematic promotion in Intervention Area 1 also requires a change in how they are perceived externally by actors on the meso level, who do not traditionally view smallholders as entrepreneurs (maize, rice, pineapple & cashew CS; Explnt).

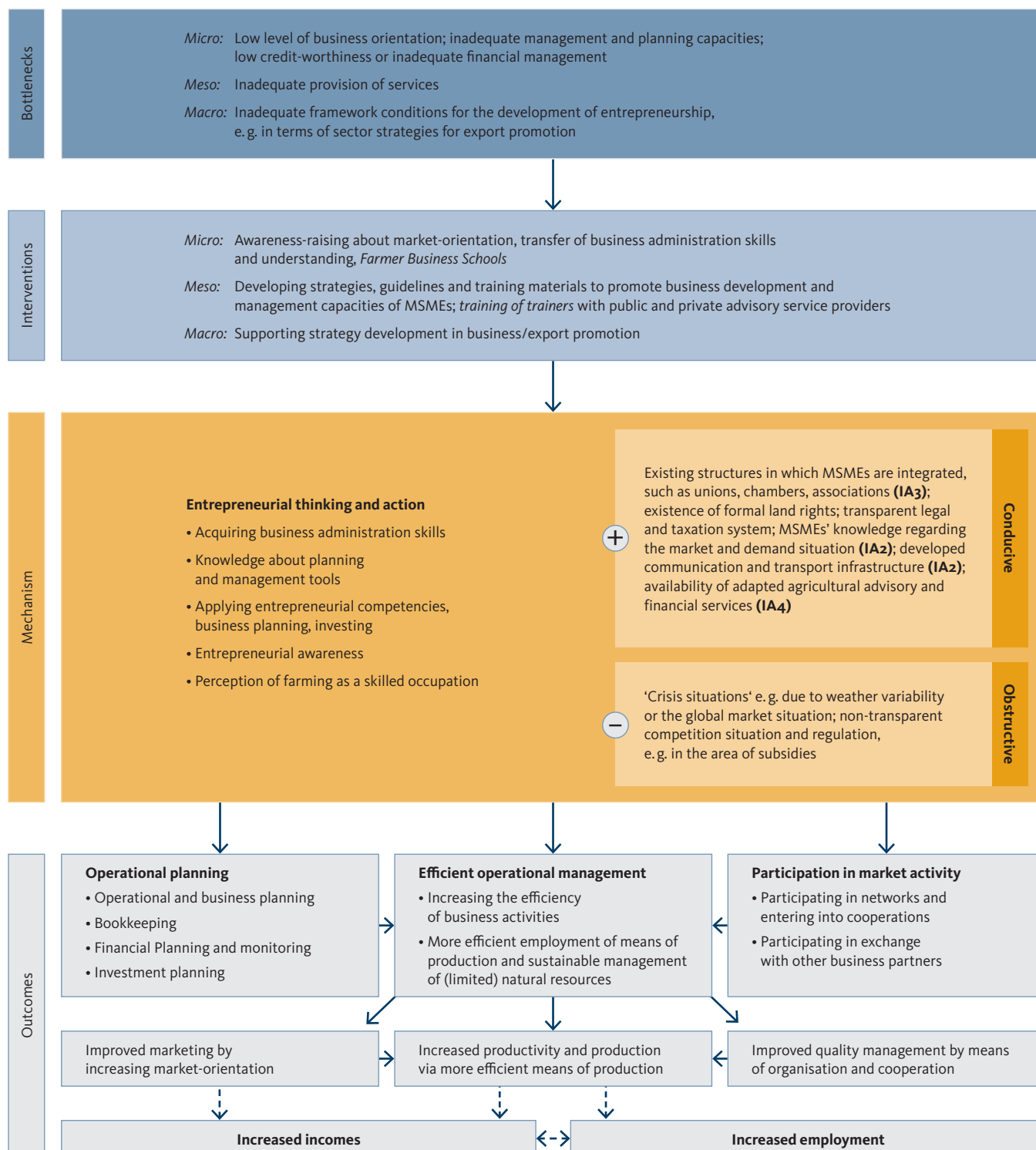
In the case studies investigated, TC interventions on the target-group level were carried out not only by state agencies but often also by private agencies, which supplement the limited capacities of the state partners (maize, rice, pineapple & cashew CS). In both case-study countries, the market participants on the production level are largely organised in groups, which makes for easier communication and delivery of training courses, etc. A format that has gained more attention in recent years is the Farmer Business School, which has mainly been put into practice in the cashew and rice value chains in Burkina Faso.

Infobox 4: Farmer Business Schools (FBS)

In recent years, Farmer Business School approaches have gained popularity in German and multilateral development cooperation. Whereas Farmer Field Schools predominantly deal with improved farming methods (e.g. integrated crop protection) (Waddington and White, 2014), the foremost concern at Farmer Business Schools is the transfer of entrepreneurial skills (CIP, 2016). The objectives of the Farmer Business Schools are to strengthen the competitiveness and market orientation of smallholders. They are put in a position to make better entrepreneurial decisions regarding farming methods, investment practices, production planning and cost calculation taking account of risk assessments, which can ultimately lead to increased yields and household incomes (FAO, 2011a; GIZ, 2015b). Farmer Business Schools are often part of an integrated approach that is combined with additional services, such as agricultural advisory work or the provision of financial services (GIZ, 2015b). Similarly to Farmer Field Schools, Farmer Business Schools put the emphasis on collective learning through participatory approaches (Waddington and White, 2014), for which the participants must demonstrate elementary writing and calculation skills (FAO, 2011a).

Conducting gender analyses in the selected value chains makes it possible to incorporate gender considerations into the design of support activities. In the maize value chain in Ghana, such an analysis was carried out at the beginning of the promotion. Subsequently, promotion objectives were formulated which include the explicit promotion of women as traders and entrepreneurs. The programme in Ghana further aims to support the organisation and the equitable participation of women and men in decision-making processes in the producers' and value-chain associations. In the rice value chain in Burkina Faso, women engaged in the processing of rice were provided with targeted training in such areas as book-keeping and financial planning.

Figure 11: Intervention Area 1: Development of the private sector



Mechanism and changes in behaviour

As set out in the discussion above, key objectives in Intervention Area 1 are for the target groups to acquire basic business administration skills and practical knowledge about adapted planning and management tools. Competencies in these areas are the foundation for entrepreneurial action in areas such as business planning, enterprise management and business investment. The basis for putting these into practice successfully is the higher-level mechanism of developing entrepreneurial thinking and action (see Figure 11).

Via the mechanism of “entrepreneurial thinking and action”, changes in behaviour can be promoted in the following areas:

1) business planning, 2) efficient operational management and 3) participation in market activity. With reference to business planning, the target groups feel that the activities on book-keeping and on financial monitoring and investment planning are especially useful when it comes to taking their own entrepreneurial action (maize, rice, pineapple & cashew CS). Producers in particular emphasise book-keeping skills as an essential basis for making internal improvements to individual aspects of their business operations (pineapple & rice CS). Addressing themes relating to efficient operational management can be effective in creating greater awareness of how to employ means of production more efficiently and how to manage (limited) natural resources. Moreover, the target groups’ self-perception, in the sense of viewing their activities as entrepreneurial actions, also forms the basis for developing an interest in playing a full part in market activity and thus engaging in exchange and possibly cooperation with other actors. In the case studies, this perspective is also shared by the supporting environment, i.e. by the advisory and financial services providers. Thus, activating entrepreneurial thinking and action can give rise to more interest in building up reliable business relationships as well as exchange and cooperation. In this respect there is a close correlation with Intervention Area 3.

The great significance of entrepreneurial thinking was stressed in the expert interviews. Entrepreneurial awareness is perceived as a fundamental prerequisite for all the other promotion activities (Explnt). Accordingly, the activities in this intervention area act as a foundation stone for successful value-chain

promotion. Particularly on the producer level, there is a danger that promotion activities will fail to reach actors with poor business and market orientation because of their low level of individual initiative. The potential for insufficiently business-oriented target groups to be neglected also appears realistic from a comparison of the findings from the case studies and the portfolio review. The promotion of producer groups is one way to ensure that less entrepreneurially-oriented actors are also reached. Beyond the producer level, existing structures like chambers, unions and associations provide conducive framework conditions (maize, rice, pineapple & cashew CS; PR; Explnt).

The implementing organisations recognised the priority of entrepreneurial thinking as one of the basics of successful value-chain promotion (Explnt; PR). In practice, awareness-raising about the necessity of producing to meet the market’s expectations is often inserted at the beginning of the promotion chronology before further support activities in other intervention areas take place (maize, rice, pineapple & cashew CS). For this reason, one feature commonly seen in the case studies was that activities to promote entrepreneurial thinking and action were linked with training courses on building business relationships (IA 3) or for the introduction of standards (maize, rice, pineapple & cashew CS).

Although entrepreneurial thinking is uniformly perceived to be important, differences in the treatment of this prerequisite can be discerned between one type of promotion approach and another. Whereas a number of promotion activities within the category of structure-oriented approaches relate quite explicitly to the enhancement of entrepreneurial awareness, firm-centric projects and programmes usually take these aspects for granted and support their further enhancement more implicitly through the integration of actors into entrepreneurial processes.

Apart from the significance of existing structures that has already been mentioned, the findings from the case studies, the portfolio review, and the expert interviews give pointers to additional conducive factors. In this regard, the existence of formal land rights turns out to be a fundamental conducive factor which has positive implications for putting

entrepreneurial planning into practice, particularly when it comes to investment. Transparent legal and taxation systems increase the motivation to become active as an entrepreneur in a given (sectoral) context. Other conducive factors can be invoked by activities from different intervention areas. The target groups surveyed in the case studies, for instance, emphasised the conducive influence of information about the market and, above all, about the demand situation in a particular sector. Well-developed communications infrastructure and, no less importantly, transport infrastructure emerged as key prerequisites (IA 2). In addition, the availability of adapted advisory and financial services has a positive influence on entrepreneurial thinking and action (IA 4).

The findings from the case studies and the expert interviews also point to obstructive factors, however. In particular, putting entrepreneurial thinking into practice presupposes a minimum level of resources and a certain willingness to take risks – both factors that are often not found in vulnerable households and especially among women. In order to include these groups, the promotion activities must therefore be designed so as to compensate for such deficits. This may be achieved by integrating actors into contract-farming systems coupled with the provision of the necessary production factors, by promoting cooperatives, or by providing adapted financial services (including saving schemes). In the Ghana case studies (maize & pineapple CS) there were also references to the uncertain allocation of comprehensive fertiliser subsidies, which reduced the capability for entrepreneurial planning and thus the willingness to become entrepreneurially active.

Outcomes

Via improved business planning and participation in market activity, the target groups of value-chain promotion increase the efficiency of their own economic efforts (maize, rice, pineapple & cashew CS). The activities evaluated thus make a contribution to efficient operational management, which in turn leads to 1) increased productivity, 2) improved quality management, and 3) improved marketing. Whilst this means that essentially all outcome areas of the overarching impact logic are touched upon, “entrepreneurial thinking and action” primarily addresses the marketing aspect (on this, cf. the discussion in the pineapple CS in Section 5.2.2). The listed

support activities can be assessed as especially effective in relation to this outcome area. The case studies confirmed that this intervention area brought about an improvement in marketing, since the message had filtered through to the actors that it was necessary to produce for the market. In the expert interviews, too, the development of entrepreneurial thinking and action was emphasised as important for successful marketing. Professionalisation results in greater access to potential business partners. In terms of systemic promotion, activities become more effective at improving marketing as access to market information improves (IA 2) and as actors establish business relationships with other actors (IA 3). The precondition for the effective interplay of these factors is access to production factors and adapted agricultural advisory and financial services (maize, rice, pineapple & cashew CS; ExpInt). For the area of quality management (IA 5), entrepreneurial thinking and action are likewise highly relevant (ExpInt). In the case studies it was ascertained that the actors were producing higher quality products that met market demand, and were thus able to reduce post-harvest losses (maize CS) or achieve better prices (rice CS).

Bringing about improved marketing and quality management and increasing productivity form the basis for improving incomes and increasing employment (maize, rice, pineapple, cashew CS; PR; ExpInt). According to the expert interviews, incomes and employment can be increased successfully if smallholders are sustainably integrated into the economic processes of a value chain.

Even though the necessity for basic entrepreneurial thinking is almost universally acknowledged by implementation partners, the findings from the case studies and comparable results from the portfolio review and the expert interviews indicate that the tight timescale of value-chain projects and programmes constrains the effectiveness of support activities and is not conducive to putting entrepreneurial thinking into practice on a sustainable basis, particularly in respect of business planning and book-keeping.

Another finding revealed by the case studies, however, was that developing entrepreneurial awareness and applying the private-sector skills on the individual enterprise level do not

automatically contribute to improved and successful business relationships with other actors in the value chain (on this, see also IA 3). This is manifested particularly in contexts that are characterised by inadequate framework conditions for stable contractual relationships. Particularly in the Burkina Faso case studies, there are clear indication that the low significance attached to contracts and unsatisfactory honouring of contracts militates against any consistent practice of business administration standards (rice & cashew CS). Poorly developed contracting systems make it harder to develop a lasting business orientation.

6.2

Intervention Area 2 – Market development

Challenges /bottlenecks

In the broadest sense, markets are formed wherever supply meets demand. Hence they are the linking element between the individual stages of a value chain, and are simultaneously the elementary prerequisite for its existence. However, there are various bottlenecks which make the utilisation of markets more difficult for the actors in a value chain (FS; Explnt; PR; Norell and Brand, 2012; Shepherd, 2007): poorer target groups in particular are short of knowledge about the functioning and dynamics of markets, and are therefore barely able to assess or respond to the opportunities and risks of market use. Apart from lacking a fundamental understanding of markets, they often have no concrete information about demand and prices. On the one hand, this leaves the actors unable to maximise their market revenues in a planned way. On the other hand, when it comes to trading, their negotiating power is impaired by information asymmetries. Often the reason for a lack of market access is that actors have no contact with business partners and are not in a position to gain entry to lucrative markets themselves. Even purely physical access to markets presents a fundamental obstacle if, for instance, necessary infrastructure like market sites, storage buildings or transportation routes do not exist at all or are in sub-standard condition.

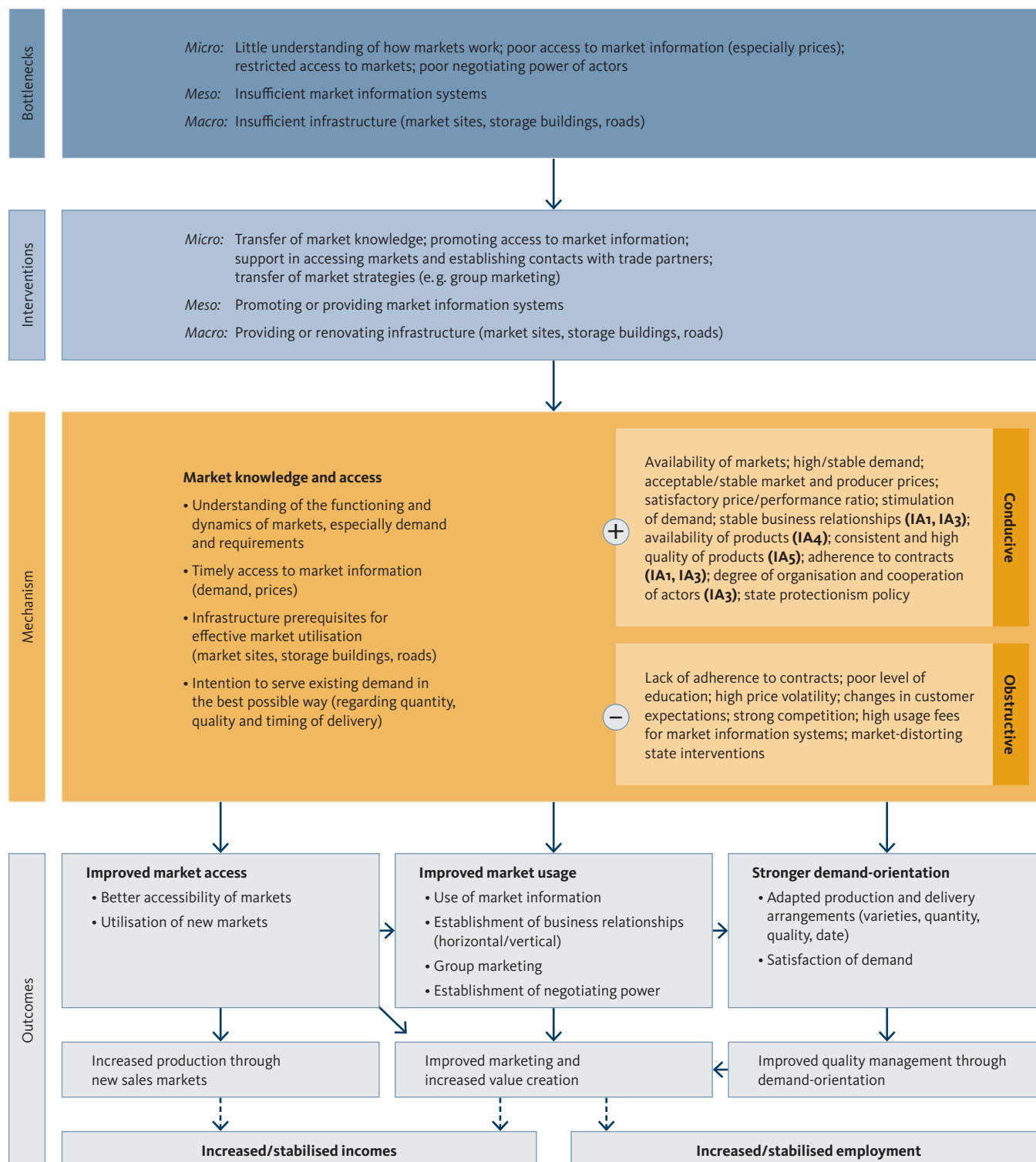
Interventions and activities

Unlike agriculture programmes, which usually set a priority on increasing production, value-chain promotion projects and programmes deliberately focus on development of the market: they are designed to be demand-oriented and thus ‘conceived from a market perspective’ (Explnt). This more emphatic market orientation is also reflected, for example, in the “Linking Farmers to Markets” approach of the Food and Agriculture Organisation (FAO), the orientation of which had a key influence on the design of value-chain promotion programmes (Explnt; Shepherd, 2007).

In German value-chain promotion, the aspect of market development⁵⁶ is taken up by means of various interventions: basic knowledge transfer about markets is carried out so that actors in the chain can incorporate the functioning and dynamics of markets into their entrepreneurial decision-making. This takes place either as an individual module within the framework of higher-level training formats like Farmer Business Schools (see Infobox 4), or by means of explicit training courses on marketing (Explnt; PR; cashew & rice CS). Efforts are also made to facilitate timely access to relevant market information such as prices and quantities in demand. This is done either by passing on market information from external sources or else by establishing stand-alone market information systems (PR; pineapple, cashew & maize CS). For example, value-chain actors in the pineapple and maize case studies were enabled to access a market information system via mobile phones. To create access to new markets, support activities are carried out which promote exchange with potential customers (pineapple CS), or suitable service providers are brought in to help establish direct business relationships between actors in the chain (cashew CS). Furthermore, a small number of value-chain programmes in the German portfolio include activities to promote physical market access, e.g. by providing or restoring infrastructure like market sites, storage buildings or roads – measures that are primarily carried out in the course of FC activities (PR; cashew & rice CS).

⁵⁶ The activities encompassed within the intervention area of ‘market development’ in the narrow sense are those directed to the provision of basic market knowledge and information, physical access to markets, and the active shaping of demand on the consumer side. Many activities in other intervention areas likewise pursue the objective of improved market access, e.g. by promoting business relationships or supporting certification systems. In the broader sense, ‘market development’ can therefore also be considered as a trans-sectoral theme, whereas the focus of this intervention area remains on market knowledge, information and access.

Figure 12: Intervention Area 2: Market development



Mechanism and changes in behaviour

Value-chain promotion should ensure that suitable markets are available and can be utilised as optimally as possible. Therefore the central element of value-chain promotion is to create awareness on all levels that production must be oriented towards the requirements of the market (Explnt) (IA 1). The activities in this area (IA 2) set out to promote a basic understanding of the market among actors. They are also intended to make sure that the actors have relevant market information at their disposal and are successfully integrated into markets. Better utilisation of markets should come about as a result of facilitating easier access to existing markets or creating access for the first time, on the one hand, and through better exploitation of potentials, on the other. To this end, steps must initially be taken to ensure that actors are aware of the functioning and dynamics of markets. Paying attention to the demand, preferences, or requirements of the market regarding the desired quality or quantity of the product is a particular factor that contributes to successful market utilisation. In the case studies, producers emphasised that they had only become aware of such issues of relevance to them thanks to knowledge transfer about the market (cashew & rice CS). The transfer of knowledge about the market is often also a component of training courses to promote entrepreneurial thinking and action (IA 1).

Next, access to the market must be ensured. Initially this means having the necessary infrastructure in place. The construction of roads and bridges improves the transportation routes and hence the transportation of marketable products to the end buyers (rice CS). In this way, transaction costs can be lowered and transportation times reduced whilst at the same time improving mobility for the entire rural area (ADB, 2012; Knox et al., 2013). Various objectives are pursued in this respect, depending on the emphasis of the promotion: either roads are extended in order to connect regions with high levels of production to strategically important markets, or else the focus is placed on improving market access for disadvantaged target groups. Further, the expansion of infrastructure may also concentrate on the establishment or restoration of market sites (maize CS) or storage buildings.⁵⁷ The provision of storage buildings helps to lower post-harvest losses, makes for easier organisation of collective sales, and can be used for the storage

of other products from local value chains (rice CS). Generally the expansion of infrastructure is rated as helpful for market integration, although constraints can also affect utilisation in particular instances (ADB, 2012; Seville et al., 2011). In the rice case study, for example, roads were built which do ease market access but sometimes become impassable in the rainy season, according to the responses of those affected. Beyond this, substantial investments are necessary to improve infrastructure, which are unaffordable for many donors (Seville et al., 2011).

Apart from ensuring physical market access, support activities are also implemented to give the actors access to new markets. This can be done in various ways: first, interventions can promote exchange with potential customers; for example, by facilitating attendance at events (trade fairs) for customer acquisition (pineapple CS). As well as establishing business relationships, events of this kind also enable participants to become better informed about current developments in their market or product segment, which can be highly significant for the competitiveness of (especially export-oriented) value chains (cf. Whitfield, 2012). Then there are value-chain projects and programmes which, from the outset, have been designed to incorporate pre-defined and pre-established access to a market or an end buyer. This is commonly the case in firm-centric approaches, which in the majority of cases are primarily interested in establishing stable supply relationships for the private-sector partner's trade products (PR). The situation is similar with value-chain projects and programmes involving the private sector, where the end buyers of the promoted value-chain products are likewise clearly defined, and also participate in the financing of the projects and programmes, as in the case of the African Cashew Initiative (cashew CS). In this case markets are accessed via the mechanism of bringing supply chain actors into contact with end buyers who have already been lined up. In this way, concrete business relationships are created, which simultaneously ensure that information is exchanged about essential product and quality requirements. In some cases, the firms also make upfront payments to the producers or smaller enterprises who take charge of a certain stage of processing. In the event of high price volatility, fragile business relationships or side-selling options, however, these promotion models harbour a far from negligible risk. The promotion of market access in the sense

⁵⁷ In the broader sense this also applies to the provision of energy and water supplies and communications infrastructure; however, this aspect was not analysed in more detail within the scope of this evaluation.

of establishing or strengthening business relationships is also addressed in the course of interventions in other areas, particularly in the promotion of entrepreneurial thinking and action (IA 1) and activities to strengthen organisation and cooperation (IA 3).

Alongside a basic understanding of markets and secure market access, the availability of market information represents another crucial prerequisite in the area of market development. Timely access to market information – and particularly information on prices – enables actors in the value chain to respond to price differences and changes, which improves their negotiating power (pineapple, cashew & maize CS; ADB, 2012). This applies particularly to the producer level, where value creation is markedly reduced by information asymmetries vis à vis trade and processing enterprises. For example, the producers in the cashew case study were faced with the difficulty that traders deliberately spread the misinformation that surplus raw nuts would shortly cause a price collapse. In this instance, the provision of up-to-date market information by a French NGO saved the producers from selling their harvest substantially below value. Normally producers have access to informal information channels and personal networks, and this is how they exchange market information. In contrast, neutral and generally accessible market information can be provided systematically by making use of market information systems. These are often made available by state institutions, private sector organisations or NGOs. Although market information systems undoubtedly offer a crucial support function for market activities, they are subject to limitations when put into practice in reality: usually they only provide information on the most frequently traded local primary products, and do not supply data on export markets or on further-processed products in general. More importantly, though, the information provided is often not available at the right time or is not reliable (ADB, 2012; Shepherd, 2007). Rapid and reliable access to information is, however, crucial for easily perishable products. Keeping the information up to date is a particular challenge when drastic price fluctuations occur in local markets whilst formalised contractual relationships barely exist. In this eventuality, it may be that the price on arrival at the market is far lower than at the time the information was accessed, and given that

transportation costs have now been incurred, the venture can turn into a loss-making deal (pineapple CS). Moreover, potential user-groups of market information systems are often not willing (or in a position) to pay regular fees for price information systems. For example, in the pineapple case study, producers rated the facility to use a market information system as relevant and helpful when it came to selecting the markets in which to sell their products. Nevertheless, when the support period came to an end, hardly any of them extended their memberships out of their own pockets.

The valorisation of market awareness and access can ultimately only succeed if there are sufficient sales markets, if these are relatively stable and predictable, and if contracts are adhered to. The existence of strong (or at least stable) demand is therefore especially conducive; changes in demand on the part of consumers force producers to make adaptations which, in turn, mean increased overhead costs and poor planning certainty, and may not be affordable for some producers (pineapple CS).

Value-chain activities in the area of market development can also contribute to the active stimulation of demand: in the rice case study, for example, support for a national advertising campaign for Burkinabe rice had just begun at the time of the data collection. The campaign is intended to help to combat the strong competition from imported rice varieties and raise the population's awareness of domestic production. Since the advertising campaign is not aligned to any particular brand but is geared towards Burkinabe rice in general, all actors in the value chain should benefit from it. At the same time, however, the promotion organisations are urging producers to start labelling their own production so as to be able to take advantage of the marketing benefits (prices, quantities) of good quality. It is too soon to assess the effect of these measures. Relevant experiences reported by other value-chain projects and programmes were not available to the evaluation team.

State interventions or trade-policy measures make a particular difference in the area of market development; these can have both positive and negative consequences for the development of a value chain. This ambivalent effect emerged very clearly from the case studies in Burkina Faso: in the cashew value chain, many respondents remarked that the state policy

of protectionism, as employed in neighbouring Cote d'Ivoire, for example, was necessary in order to regulate the bulk buying of raw nuts by foreign traders and thus to safeguard the necessary supply volumes for domestic processing. In the rice value chain, in contrast, the state already intervenes massively in the market by taking responsibility for buying up the greater part of domestic production itself, albeit without imposing minimum requirements or price differentials in relation to quality. While this sales guarantee has an initial effect as a production incentive, it prevents the establishment of a value chain that functions without state interventions.

Outcomes

The synthesising view of the findings from the expert interviews, portfolio review, literature and case studies shows that the promotion of market understanding and access and the provision of market information are the main components of the “market awareness and access” mechanism. Opening up new sales markets brings about production increases and improved marketing. Moreover, access to new markets and the availability of market information contribute to the reduction of transaction costs and risk, and to the establishment of new business relationships. These effects are important impulses for advancing the transition from subsistence farming to commercial agriculture, since they facilitate increased value creation as well as stimulating investment. Through knowledge of the market, options for action open up so that sales and marketing potentials can be fully exploited, e.g. by means of group marketing (tying in with IA 3) or a stronger orientation to demand (tying in with IA 1). With increasing options for active management of their sales activity, market actors experience an accompanying increase in their negotiating power, particularly for alternative sales markets. This is mainly demonstrated by the cashew CS. In many cases these outcomes are supported by, or even reliant upon, activities in other intervention areas; e.g. entrepreneurial thinking and action (IA 1), possibilities for cooperation (IA 3), capacity to expand production (IA 4) or for the manufacture of higher quality products (IA 5). Boosting production and value creation and improving quality management in the course of efforts to strengthen demand-orientation ultimately contribute to raising and stabilising incomes and employment.

Particularly from the perspective of poverty reduction, greater attention needs to be paid to the question of how far systemic factors which obstruct the target groups' market access and integration – factors such as low delivery volumes, erratic quality, problems of transport infrastructure, inadequate market knowledge and information, and low negotiation power – can be tackled. In this context, the activities implemented in Intervention Area 3 play an important role, particularly the promotion of farmers' organisations, as the cashew CS illustrates.

6.3

Intervention Area 3 – Organisational development, institutional development, business relationships

Challenges /bottlenecks

Value chains are made up of economic actors who engage in a mutual exchange of goods, information and services by entering into business relationships (Jaffee et al., 2010). In this sense, value chains are complex constellations of actors who, for the most part, can be assigned to one sector or one specific product category (Gereffi et al., 2001). Organisation and cooperation form the key pillars of successful exchange relationships (Humphrey, 2005; Humphrey and Navas-Alemán, 2010; Kaplinsky and Morris, 2001). Both pillars relate to the processes and structures not only within a chain but also between particular groups of market actors along the chain.

In the evaluated case studies in Ghana and Burkina Faso, inadequate organisation and cooperation go hand in hand with a low level of trust between the actors (maize, pineapple, rice & cashew CS). This is the cause of insufficient exchange (of information), which in turn militates against the building of trust (Kaplinsky and Morris, 2001). According to the portfolio review and the expert interviews, a certain degree of organisation constitutes the prerequisite for possible modes of cooperation, and hence for the horizontal and/or vertical integration⁵⁸ of a chain. Inadequate organisation can essentially be found on all stages of a value chain (maize, pineapple, rice & cashew CS). Possible forms of organisation include groups and unions, cooperatives, chambers and associations, and the umbrella organisations of the above. It is also frequently emphasised

⁵⁸ “Horizontal integration” describes the planned cooperation of independent enterprises at one stage of production, the aim being to realise economies of scale in purchasing or marketing. “Vertical integration” refers to the planned cooperation between different production stages on the basis of contracts, as a means of reducing transaction costs and optimising supply chains. One example of vertical integration is contract farming.

that actors lack awareness of the possible potential to be derived from organisation and cooperation (Explnt). In practice this is expressed in the actors' weak sense of ownership of the processes and structures of the respective forms of organisation and cooperation they are involved in (maize, pineapple, rice & cashew CS). However, a lack of ownership can also result from organisations and structures having been established under a top-down approach.

In the course of the portfolio review as well as in the expert interviews, it became clear that insufficient exchange and underdeveloped business relationships between actors on the micro and meso level posed a particular challenge. In the case studies, this is reflected in the form of low provision or low take-up of advisory and financial services. On the macro level there is also frequently a lack of support to promote sustainable structures and processes appropriate to the needs of the different forms of organisation (Explnt; PR; ADB, 2012; Humphrey and Navas-Alemán, 2010). This can often be traced back to the inadequate participation of private-sector actors in the partner countries' economic-policy strategy formation (maize, pineapple, rice & cashew CS).

Interventions and activities

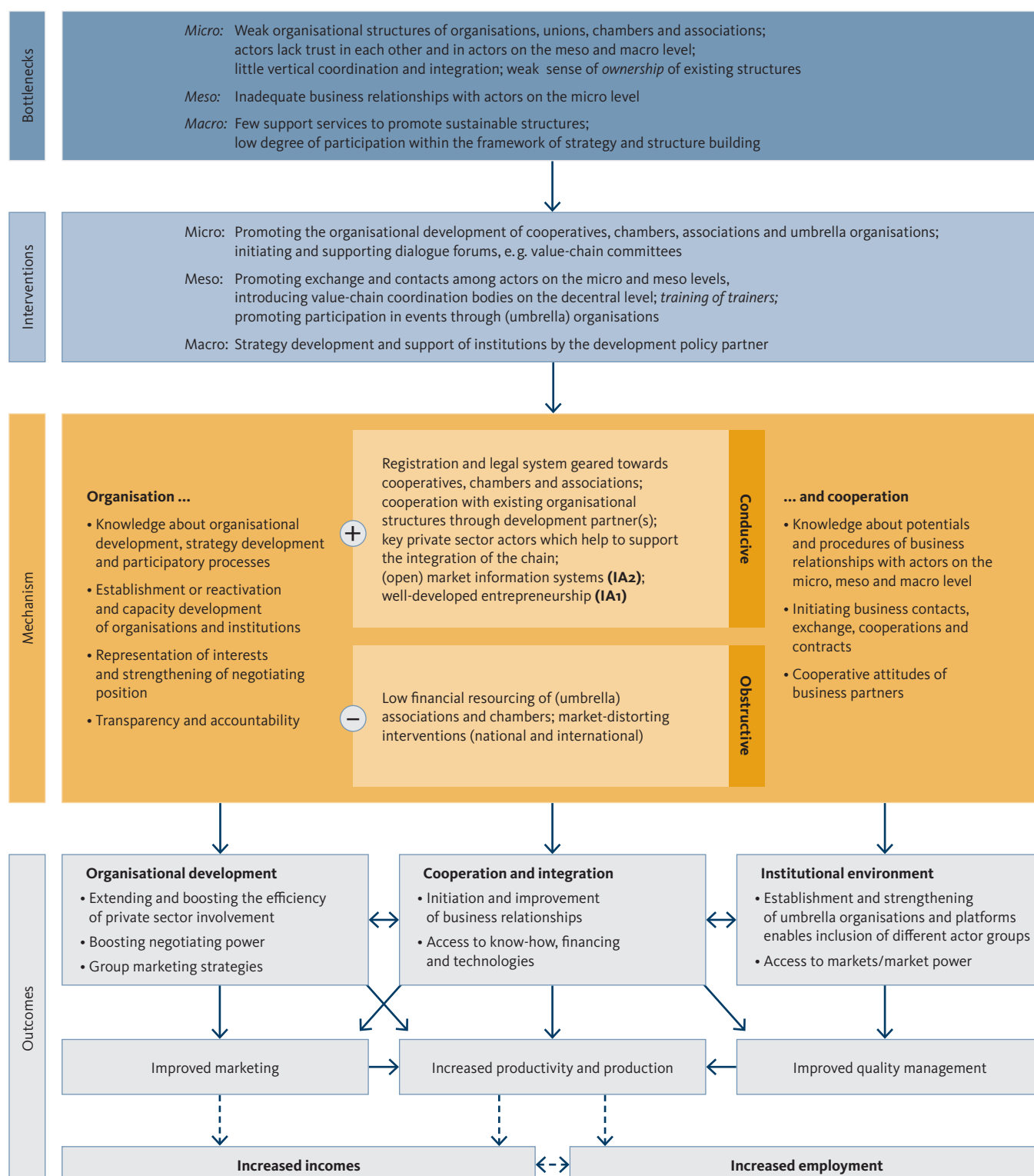
Since inadequate organisation and cooperation number among the recurrent and fundamental challenges of value-chain promotion, German development cooperation addresses these bottlenecks by means of support activities within and between the different levels of a value chain (Explnt; PR; maize, pineapple, rice & cashew CS; GTZ, 2007; GTZ, 2009).

On the micro level, the support activities are oriented towards the organisational development of groups, unions, chambers and associations, and their umbrella organisations (maize,

pineapple, rice & cashew CS), which also includes the initiation and support of exchange platforms and dialogue forums. Special activities for developing organisation and cooperation include the training and support of value-chain committees (VCCs). The purpose of these is to contribute to the establishment and continuing development of a value chain with broad participation from a variety of actors (pineapple & maize CS).

On the meso level the promotion activities are addressed mainly to advisory and financial services providers in order to facilitate exchange with value-chain actors and the establishment of adapted services (PR; Explnt; maize, pineapple, rice & cashew CS). In some cases, research institutions are the targets of promotion or cooperation initiatives (cf. especially the cashew CS). Often the local development partner and their (decentral) structures play a special role in the establishment of networks and cooperations. Since value-chain promotion is actually always a trans-sectoral task between the existing departments e.g. of a ministry, efforts are made in some cases to create structures capable of tackling such multi-sectoral tasks (PR; maize, pineapple, rice & cashew CS; GTZ, 2007). Another activity on the meso level is the promotion of (umbrella) associations, for instance in the area of strategy development (maize, pineapple, rice & cashew CS). Activities on the micro level are addressed to the economic framework conditions and the political institutional context. Working jointly with the development partner, the aims include not only improving democratic control and legal certainty but also creating economic incentive and control systems that support productive activities, economic growth, distributive justice, sustainable resource use and decentral governance. The key activities include policy advisory work as well as country or sector strategy development.

Figure 13: Intervention Area 3: Organisational development, institutional development, business relationships



Mechanism and changes in behaviour

Organisation and cooperation constitute core elements of market-based value-chain processes and are thus accorded high priority within German value-chain promotion (PR; Explnt). Both aspects comprise fundamental mechanisms for the activation of behavioural changes in the areas of organisational development, horizontal and vertical integration, and development of the institutional environment (see Figure 13).

The basis for promoting organisation is the development of knowledge about the possibilities and potentials of organisational and strategy development, and the associated (participatory) processes and structures of the respective actors. Information and the exchange of experience about functioning forms of organisation represent the foundation for establishing, reactivating and enhancing the institutional development of organisations. On the level of the value-chain actors, information and experience are made available mainly in the form of training courses with the given target groups (maize, pineapple, rice & cashew CS). These are delivered either by the development partners or by private sector implementation partners. In practical terms, these consist of support for the drafting of regulatory frameworks, strategy documents and action plans. These include the clarification and formulation of objectives, roles and responsibilities of the organisations, externally and towards their members, the development of transparent and fair contribution systems, and the design of participatory processes, division of work, elections etc. (Explnt; maize, pineapple, rice & cashew CS). The key objectives of organisational development are, most importantly, to strengthen the representation of interests and negotiating power of the respective actors, and to increase transparency and accountability towards the organisations' members (Explnt; maize, pineapple, rice & cashew CS). Thus, training courses on organisational development alongside activities supporting entrepreneurial thinking and action (IA 1) form another core area of work in the field of value-chain promotion. As described above, activities in these two areas (IA 1 and 3) are often planned and carried out together.

Building on the organisational structures of the given value chain, activities to improve cooperation are aimed at building up knowledge and experience about the potential to be

derived from business relationships between actors in a value chain and with the supporting environment. By attending training courses, information events and exchange platforms, the aim is to empower value-chain actors to engage in exchange with other actors, make business contacts, build up business relationships and enter into cooperations and contracts (PR; Explnt; GTZ, 2007). The higher-order economic objective is to increase the vertical integration of a chain. On the way to attainment of this objective, the attitudes and awareness of the given target groups towards cooperative actions play an important role. This is particularly evident in contexts or sectors characterised by high competition (Explnt).

The activation of mechanisms in the areas of "organisation" and "cooperation" contributes to behavioural changes and structural changes in institutional development, in the integration of different economic processes, and in top-level organisational development.

The outcomes of organisational development also include changes in behaviour in private-sector commitment. Integration into organisations helps to reduce transaction costs for the individual members. For instance, it emerged in the course of the case studies that thanks to the delegative principle in farmers' organisations, the individual costs of participating in information events in networks have fallen, particularly for producers (maize, pineapple, rice & cashew CS). In practice this means that at least one board member from the organisation represents the given group at relevant events and brings the acquired information and skills back to the group. However, examples are also found where the sending of delegates can lead to abuses through the exploitation of individual advantages. This occurs mainly when no rotation mechanisms are built into the delegative principle. The efficiency gains in this area are highest when all members of the given organisation can participate fully and with equal standing in the information and decision-making processes (maize, pineapple & rice CS).

Efficiency gains can also be achieved through joint marketing, e.g. by pooling products, etc. (GIZ, 2012). In particular, the collective selling of products in larger quantities by farmers' unions results in better negotiating power, especially at the

point of price formation between buyers and sellers (maize, pineapple, rice & cashew CS). In the case studies, the activities in the area of awareness raising and training courses on capacity development on the levels of production and trade proved very effective overall with regard to improved management of the organisations. As the degree of organisation rose, the promotion of formalisation of transparent processes and structures proved most essential for the building of trust and ownership. On the level of the target groups, the clarification of responsibilities, roles and leadership tasks, competences and representation rules, the introduction of contributory and control systems, and the initiation of group dynamics were considered especially conducive.

Overall, the sustainable establishment and support of organisations at all stages of a supply chain consume substantial resources in terms of time and personnel (Explnt). Because of high transaction costs, certain continuing education courses are only offered to pre-existing organised groups (pineapple & rice CS). Hence, this is another intervention area which constitutes a foundational element of promotion that other value-chain interventions can build upon.

For the inclusion of target groups, the decisive aspect is the extent to which the concrete project succeeds in organising them in communities of purpose – for example, producer organisations – and thus makes them reachable for value-chain promotion. Since groups that have organised on their own behalf are usually more market-oriented already, the risk here is that poorer and marginalised actors may not be reached (PR; Explnt; pineapple, rice & cashew CS). Findings from the case studies and the expert interviews also indicate that sustainable successes in organisational development can only be achieved if the organisation of a group, a union or association can successfully be made independent of the initiatives of a few key individuals and established on a broader institutional basis.

The forms of cooperation within a chain are oriented in accordance with the degree of integration. Essentially they are always aimed at reinforcement or consolidation of exchange, business relationships and, where applicable, collective

economic activities. This concerns such aspects as access to knowledge and skills, the use of community-based financing and advisory models, or the adoption and use of new technologies across the spectrum of actors (see also IA 4). For example, contract-farming models known as outgrower schemes represent an intensified form of cooperative action (Explnt; PR). In such integrative cooperation forms, two or more actors from different stages of a value chain join forces so that, on the back of contractual assurances covering the exchange of information, know-how, goods and services, a joint product can be improved and/or produced in greater quantities. On the part of the processing enterprises, this can bring about increased production and, where applicable, improved quality. On the part of primary producers, investments can be made and gains in quantity and quality similarly achieved (Explnt; CS). In some cases, the value-chain actors are actively supported by service providers on the meso level. One example of such a three-way constellation is the KfW's Outgrower and Value Chain Fund (OVCF) in Ghana (see Section 5.2.2).

Alongside the behavioural changes in the area of organisational development and cooperation within a value-chain constellation, changes and adaptations also come about in the institutional environment on the meso level. Among these are the establishment and strengthening of trans-sectoral institutions, umbrella organisations and exchange platforms, which usually encompass several actor groups and have a considerable influence on the structure of chains (pineapple, rice & cashew CS). Top-level chambers and associations often concentrate a high level of market power and can exert considerable power to shape access to (new) markets (rice CS). At the same time, (umbrella) associations and other organisations face the challenge of channelling sometimes very diverse interests and having to formulate comprehensive action plans (pineapple CS). If the envisaged aim is to increase the private-sector actors' degree of organisation by promoting umbrella associations, this can only be achieved within one module cycle by expending considerable effort and resources. The appropriate inclusion of smallholders, in particular, whose interests are not necessarily heard and represented within mixed organisations, requires additional efforts.

In contexts in which the institutional environment of a value chain is only very inadequately developed, additional structures are created in some cases via the projects and programmes. These primarily include the instrument of value-chain committees, which has been applied in numerous projects and programmes over the course of time (Explnt; PR; maize & pineapple CS). Here, too, the challenge in practice is to bring together and channel the very heterogeneous interests of the individual actors (Explnt; maize & pineapple CS). The target groups appreciate the opportunity provided by value-chain committees for exchange and for building business relationships (maize & pineapple CS). However, these platforms are also confronted with substantial challenges, not just in the evaluated case studies but in other projects and programmes as well. In the cases studied, participants as well as informants from the enabling environment report major conflicts of interest, weak ownership, the absence of relevant representatives – especially from larger processing enterprises – and the exclusion of particular groups (maize & pineapple CS). Moreover, neither these structures, mentioned as “artificial” and only created through “external incentives”, nor the corresponding coordination bodies in the decentral administrations of the development partners, are credited with much sustainability (Explnt; maize & pineapple CS).

Outcomes

Across the overarching impact logic, results arise on the outcome level in Intervention Area 3 via changes in behaviour in the areas of organisational development, cooperation and integration, and the institutional context (see Figure 13). Whereas an increased degree of organisation, as an expression of capacity development within the various actor groups, is the prerequisite for results on the outcome level, forms of cooperation between actors create direct process-driven impulses for improved marketing and quality infrastructure and the increased overall production and productivity of a value chain.

Within the scope of Intervention Area 3 the outcomes are primarily the result of marketing (Explnt; maize, pineapple, rice & cashew CS). The improvement and possibly diversification of marketing strategies succeeds by means of organisational development, particularly on the producer level. By coming

together in groups and cooperatives, producers can coordinate their marketing and organise it more efficiently (maize, pineapple, rice & cashew CS). Key elements in this process are the increase in negotiation power of individual economic actors, the exchange of knowledge and experience, and collective actions (in this regard, cf. rice CS). A higher degree of organisation contributes positively to improving the marketing at other stages of a value chain as well. Organisational development is mainly an area tackled by projects and programmes pursuing a structure-oriented approach (PR). Whilst a few developPPP.de programmes also make contributions to organisational development, for the most part these are directed to the companies themselves or to their immediate environment (pineapple & cashew CS).

Furthermore, a high degree of organisation provides the foundation for more intensive cooperation, which is beneficial for a value-chain’s overall multi-actor marketing strategy (Explnt; maize, pineapple, rice & cashew CS). Positive outcomes in marketing are achieved principally when the promotion of organisation and cooperation (IA 3) is interlocked with other intervention areas such as the introduction of new technologies (IA 4) or standards (IA 5). Beyond this, the findings from the expert interviews indicate that entrepreneurial thinking (IA 1) also makes a crucial difference here. In contexts in which this is only inadequately developed, both organisational development and the building of cooperative structures are confronted with considerable challenges (Explnt). For that reason, attention was already drawn to the close correlations between these two elements of promotion in the discussion of Intervention Area 1.

Cooperation and integration not only provide impulses for the improvement of marketing but can also bring about increases in production and productivity (rice, maize, cashew & pineapple CS). On the one hand, quality can be boosted by means of improved organisation, training courses, community-based transfer of knowledge and experience and collective investments in technologies and information; on the other hand, the quality of a value chain’s end product can also be raised successfully by cooperative actions across the spectrum of actors along the chain. The example demonstrating this most clearly is the introduction of standards and certification (IA 5). In the context of cooperative

actions, it is also possible to introduce productivity-enhancing processes such as product improvements, standardisation, or reduction of post-harvest losses through improved management of interfaces. The enhancement of productivity gives rise to the subsequent possibility of boosting the chain's total production and thus the availability of high-quality products. Scaling effects, in turn, depend upon the degree of organisation of the individual actors, and upon the product. This discussion shows that value-chain approaches must harmonise the promotion of organisation with the promotion of cooperation.

As a special form of promotion, value-chain committees (as instruments covering multiple stages of the chain) can provide basic impulses to reinforce cooperative and integrative processes. However, their suitability for overseeing or advancing new developments in a value chain on a sustainable basis is very limited indeed (Explnt; maize & pineapple CS). The higher the number of actors representing different stages of a value chain, the greater the effectiveness of cross-cutting value-chain platforms with regard to the stated outcome areas. It was apparent from the case studies that in some cases key actor groups – mainly larger processing enterprises – have little interest in participating in value-chain committees, which considerably reduces the effectiveness of the instrument (in this regard, cf. pineapple CS). The reasons for non-participation in the cases studied include the economic independence of larger enterprises, which translates into a lesser degree of reliance on organisation and cooperation initiated by development cooperation, and the fact that many development cooperation programmes are confined to a particular region. The question of whether this regional delimitation of development cooperation projects and programmes makes sense is an especially relevant one for value-chain projects and programmes.

6.4

Intervention Area 4 – Access to information, technologies, advisory and financial services

Challenges / bottlenecks

In this intervention area there are certain bottlenecks which – irrespective of the focus on value-chain promotion – number among the more general and recurrent challenges of promoting agricultural and rural development, especially on the micro level. In relation to value chains, they impede the implementation of the various “upgrading” strategies. One bottleneck results from smallholders' inadequate access to means of production and agricultural inputs, which often goes hand in hand with poor knowledge about efficient and production-enhancing farming methods. These bottlenecks account for the inadequate capability of actors to fulfil the quality and quantity requirements of the chain or the market in a timely manner. The poor access of smallholders to appropriate financing is an additional factor. This is frequently coupled with a lack of knowledge of the existing financing options as well as inadequate entrepreneurial skills (IA 1), which banks consider a basic prerequisite for creditworthiness.

Moreover, the actors on the micro level often do not receive adequate support from state advisory structures on the meso level. Not only do these suffer from inadequate resources (staff, vehicles etc.) but they often also lack the necessary knowledge to advise producers appropriately. Equally, the relationship between actors on the micro level and financial institutions is difficult for both parties. Banks lack specific knowledge of the unusual characteristics of the agricultural sector, which precludes them from offering financial products tailored to the needs of smallholders and processing enterprises. For example, these might include adjusting the timing of loan pay-outs and repayment collections to coincide with agricultural production cycles.

Interventions and activities

In the multi-actor approaches for addressing the bottlenecks under Intervention Area 4, GIZ can draw broadly on its long-standing experience in the field of rural development. Capacity development is one of GIZ's core competences. Thus, training courses on agricultural management methods,

post-harvest methods and other aspects of the production of high-quality products assume an equally important role in its value-chain promotion (maize, pineapple, rice & cashew CS). These activities are implemented through farmers' organisations and to some extent directly with the target groups, i.e. with producers. A commonly practised method of indirect training via the meso level is the training-of-trainers approach, in which individuals in leadership roles in the organised farmers' groups are trained so that they can subsequently pass on their acquired knowledge to producers or indeed processing enterprises (Explnt). Advisory services are also provided via private companies, although in this case the only clientele to be addressed are those producing in the company's interests; others have no access to these advisory services (Christoplos, 2010). Advisory work, especially on behalf of processing enterprises, is deemed worthwhile and efficient by firms, provided that the producers have no alternative sales channels. Cooperation between public and private providers in the delivery of advisory services, as practised for instance in the cashew case study, is often striven for as an alternative, with a view to ensuring that both poorer and better-off enterprises are efficiently provided with advice appropriate to their needs (Christoplos, 2010; Miehlbradt and McVay, 2005; ADB, 2012).

A further intervention is the provision of means of production and productive infrastructure. In the case studies, this included the piloting of solar dryers (maize CS), the valorisation of floodplains (rice CS), or various forms of assistance for the breeding of improved seedlings (cashew & pineapple CS). In conjunction with these support activities, training courses are often carried out on the use of the relevant infrastructure.

In the provision of financial services, GIZ works on the micro and the meso level. Actors on the micro level are informed about financing options, sometimes within the scope of general training courses to develop entrepreneurial skills which are dealt with in Intervention Area 1. Moreover, they are supported by projects and programmes in searching out suitable financing institutions and products and making contact with such institutions. GIZ also works on the level of the financing institutions themselves – as seen in its support

for the pineapple chain in Ghana – by offering workshops for commercial and rural banks in which it elucidates the needs of agricultural actors in relation to financial services and helps to develop products aligned to their needs. In light of the fact that the lack of access to financial services is very commonly cited as a bottleneck at target-group level (Explnt; maize, pineapple, rice & cashew CS), it is striking that only a comparatively low proportion of projects and programmes in the German portfolio support the provision of financial services (PR).

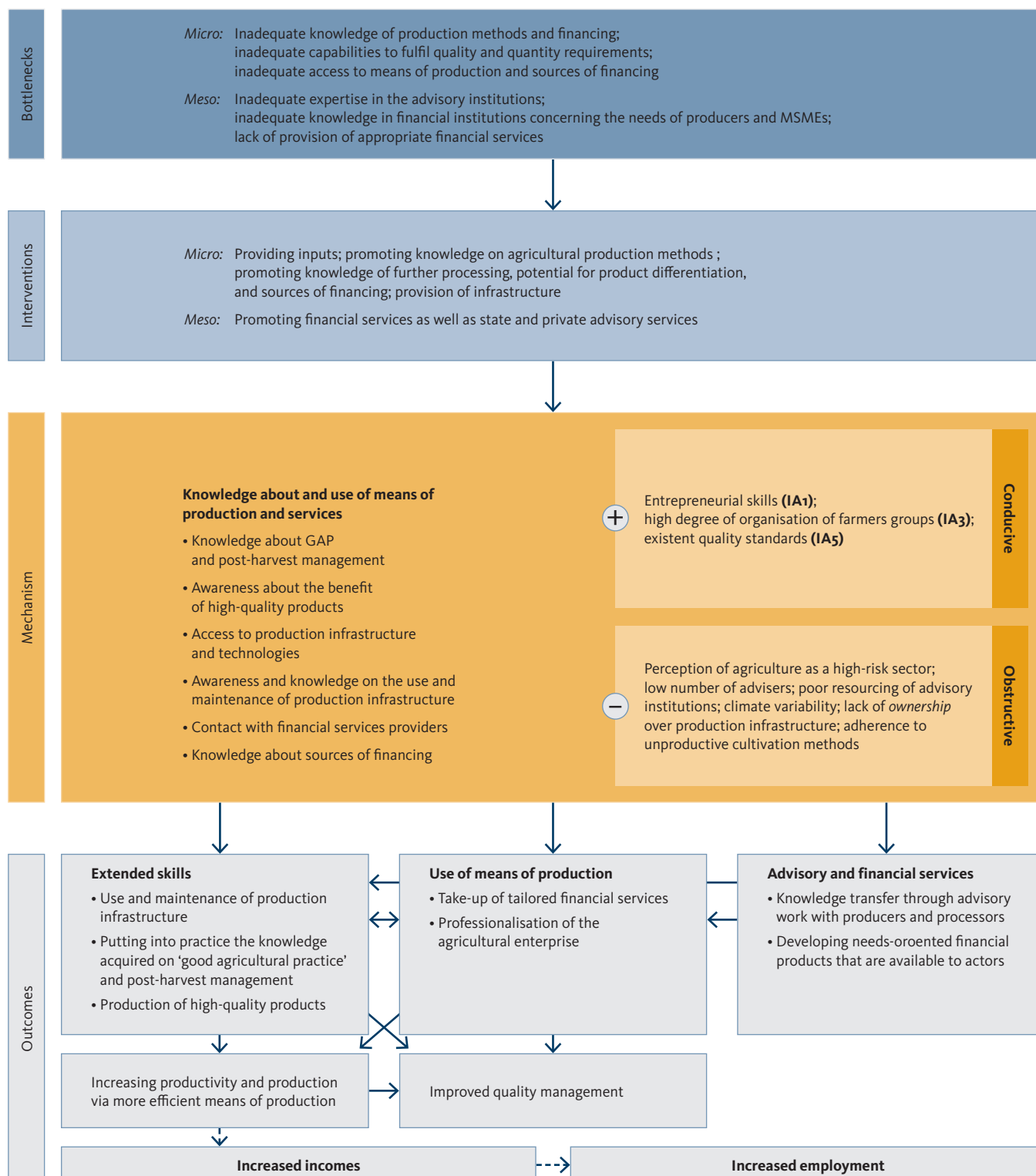
Despite these promotion activities, small (agricultural production and processing) enterprises' inadequate access to financial services still poses a fundamental problem in rural development. Alternative concepts are called for here, especially by the value-chain promotion approach to professionalise these enterprises and put them in a position to align their production to market demand. One appropriate way forward is the involvement of the private sector, combined with strengthening of the links between producers and the companies that buy from them, e.g. by means of contract-farming systems. Three-party arrangements are another commonly-used option (Shepherd, 2007; Miller and Jones, 2010). These should be especially suitable for value chains since they urge the various actors to cooperate. The availability of financial services for micro enterprises is being improved e.g. by KfW, making use of innovative financing funds. Two examples can be mentioned from the case studies: the OVCF in Ghana (see pineapple CS) or the funds for management of the enhanced floodplains in Burkina Faso (see rice CS), which are used both for the maintenance of infrastructure and for the procurement of means of production.

The KfW firstly promotes the institutional and supporting business environment of value-chain actors, e.g. by means of refinancing and the promotion of lending. The activities are aimed at improving the services and to some extent also the regulation in areas important for producers and processing enterprises, such as financing, infrastructure, or resource management. Accordingly, they are not always addressed to one specific value chain only, but to actors from different value chains and a variety of products (PR). Secondly, the KfW

promotes production infrastructure, e.g. by developing the capacities of the actors involved so that they can make the best possible use of the infrastructure.

In developPPP.de programmes the emphasis is on direct advisory work on the micro level, while the higher-order structures for the provision of advisory and financial services are practically disregarded (PR).

Figure 14: Intervention Area 4: Access to information, technologies, advisory and financial services



Mechanisms and changes in behaviour

In Intervention Area 4, training courses covering production and financial aspects with the actors in a value chain are aimed chiefly at promoting awareness, knowledge and practical skills (see Figure 14). At the same time, other steps are taken which are expected to increase access to means of production and technologies. Support activities in both areas are intended to enable the actors to make use of the existing production infrastructure whilst bringing their production into alignment with the needs of the market.

The degree of organisation of farmers' groups, which is a topic in Intervention Area 3, plays an important role when it comes to production-related promotion, since – as mentioned above – key individuals or position-holders in the groups are enlisted as multipliers for the transfer of knowledge and skills on production and post-harvest methods (maize, pineapple, rice & cashew CS). For the production of products oriented to market demand, the existence of national quality and product standards is a further supporting factor (Explnt; maize, pineapple, rice & cashew CS).

One fact that can prove obstructive to transitioning to innovative production methods may be that primary producers are especially prone to clinging to traditional farming practices, since their often precarious life situation predisposes them to risk-averse behaviour (Explnt; pineapple CS). Moreover, in some cases it was noted that there is not always a sense of ownership over the means of production made available by the projects and programmes. As a consequence, these means of production are not used or maintained appropriately, so that after a certain time they can no longer be used effectively because of their poor condition (maize CS). It is pointed out in the literature that the direct provision of means of production without involving the value-chain actors in the planning and implementation is not recommended (Shepherd, 2007).

On the meso level, the aim is to ensure the sustainable provision of advisory services by strengthening the capacities of the state advisory institutions. As multipliers of the projects and programmes, these are envisaged as being the real agents of knowledge transfer who will remain in situ after a project comes to an end. The poor resourcing of the state advisory services obstructs effective provision of such services, however. Either

not enough staff members are available to reach households that often live in far-flung locations, or there are simply no means of transport (pineapple & maize CS). An approach among private firms, in particular, is therefore to advise the target groups via private service providers; otherwise efforts are made to use a combination of public and private advisory services.

The improved production and processing capabilities that result from advisory work must be seen in combination with better access to financial services, which puts the actors in a position to acquire additional means of production and utilise them to increase the quantity and quality of production.

For the purposes of value-chain promotion, the promotion of financial services helps to make actors aware of the potentials and risks arising from the use of existing financial services. As a result of the interventions described above, the financial institutions also improve their own knowledge about the needs of smallholders as regards financial products. In addition, the brokering of contacts between the two parties increases the probability that the services will actually be taken up.

Since the financial institutions fundamentally consider agriculture as a relatively high-risk sector (pineapple CS), the rates of interest and the securities to be furnished – both of which are already limiting factors – are especially high in this sector, which only adds to the difficulty of providing financial services for smallholders or small processing enterprises. This perception can be counteracted in two different ways: by providing training courses for the banks, as practised within this intervention area, or by improving the “credibility” of agricultural enterprises by enabling them to present financial plans, for example. This pathway of strengthening entrepreneurial skills is pursued in Intervention Area 1. Alternatively – as described for the KfW – the financing models are adapted to local realities, such as by granting group loans. As in production-related promotion, this is another area where organised farmers' groups have an advantage (pineapple CS). Efforts to improve the degree of organisation of actor groups are made in Intervention Area 3. A further significant factor for the improvement of creditworthiness is the introduction and securing of formal land titles (Shepherd, 2007). However, this thematic area often falls beyond the mandate of value-chain projects.

And finally, in Intervention Area 4, where the central concerns are to increase and improve primary production, weather variabilities assume a special role as a higher-order, potentially negative factor which will certainly grow in importance in the future. Especially in sub-Saharan Africa where the preponderant number of smallholders live from rain-fed farming, factors such as unduly early or unduly late rainy seasons or severe rainfall events can seriously endanger the harvest and are already occurring quite frequently today. In the promotion of value chains by means of financial services, it seems wise to accommodate to this uncertainty by means of time-variable loan conditions or profit-risk participation models in lending; but this is by no means an integral element of current activities or studies. The promotion of irrigation systems in agriculture makes a valuable contribution to reducing the risks in this regard.

Outcomes

It was evident from the case studies that by activating the described mechanisms, the various interventions contribute first and foremost to increasing production and productivity on the level of primary production and processing (maize, pineapple, rice & cashew CS). Intervention Area 4 has a strong focus on the production level, so that this area brings forth substantial contributions to increasing production and productivity (cf. principally the pineapple & cashew CS). Moreover, in conjunction with Intervention Area 1, long-term stabilisation of production can be observed depending on the availability and condition of natural resources. Further positive contributions are made in relation to improving quality (maize, pineapple, rice & cashew CS). Once again, this aspect is to be seen in conjunction with the other intervention areas and the stronger links to markets, which ideally reward consistent high quality with better revenue and higher sales prices.

With regard to the development objective of food security, boosts in production and productivity for crops that are produced for the domestic market ensure better availability (and possibly better quality and food safety) of the product on domestic markets (maize, pineapple & rice CS). At the same time, the corresponding increases provide the basis for gains in income and thus deliver a contribution to poverty reduction.

6.5

Intervention Area 5 – Quality standards and certification

Challenges/bottlenecks

A low level of quality awareness and the associated inadequate quality of the goods produced are key problems in the field of value-chain promotion. Supplying consistently high quality represents a crucial challenge for the export sector. Often the domestic markets lack economic incentives to produce better quality grades. At the same time, there are only limited options for quality verification in situ.

Nevertheless – as the case studies also revealed – in global trade as well as in the partner countries' own markets, both public and private standards are taking on ever-growing significance (GKKE, 2015; ITC, 2010; Jaffee et al., 2011). These may relate just to the product (e.g. tested for pesticide residues) and the production process (e.g. organic or HACCP) or may also include labour and environmental standards (e.g. Global.G.A.P.; Humphrey, 2005).

For export products, private social and environmental standards play an ever-increasing role, since end consumers have now been made aware of these aspects and are exerting an influence on companies, through campaigns and their consumer behaviour, to take responsibility for compliance with the relevant standards.

National standards – if they exist at all – are often unknown to producers. But at the same time, the value chain for the domestic market increasingly requires standards to be met in order to be able to supply processing enterprises or bulk buyers. For example, HACCP certificates or the documentation of comparable standards are a prerequisite for registration by the Ghanaian Food and Drugs Authority (FDA), without which it is not possible to supply schools, restaurants or supermarkets.

In many partner countries, knowledge about certification and the potential to be derived from producing certified products is not very widespread. At the same time, the certification options are limited due to a lack of certification bodies

coupled with high costs. This was confirmed both in the case studies and in the expert interviews. National certification bodies in partner countries – where these exist – often reach their limits as expectations rise, as the pineapple case study showed. Often the necessary quality infrastructure is not in place in the partner countries and/or there are no facilities there for carrying out the relevant analyses. Expert interviews also confirmed that foods, specifically, are very demanding in terms of certification and quality infrastructure, since numerous chemical analyses are necessary for the purposes of verifying food safety.

Poor awareness and a lack of knowledge about standards and certification constitute key bottlenecks in Intervention Area 5. For smaller enterprises in particular, they often present barriers to entry which can only be overcome with external support, since they also lack the skills and access to technologies and infrastructure for producing the desired quality grades. At the same time, enterprises which do not (or cannot) produce to the prescribed standards can find themselves displaced from the market.

Non-compliance with standards makes it more difficult to build up stable business relationships (IA 3). Product rejections justified by inadequate quality – be it in national or international trade – not only raise transaction costs but can jeopardise the existence of the enterprises concerned, as a few processing enterprises confirmed. Particularly in this context, the lack of quality infrastructure and trained quality experts is often an obstructive factor.

Metrological standards likewise present a critical bottleneck. It was confirmed in the case studies that a lack of knowledge about metric standards as well as the lack of measuring instruments – especially for staple foods – generally results in disadvantages for sellers.

Interventions and activities

As reflected in the portfolio review, German development cooperation supports the introduction of quality standards and certification with various activities on the micro, meso and macro levels. As part of structure-oriented multi-level approaches, the partner ministries and authorities on the macro

level are advised on improving the regulatory framework conditions and in the course of designing and implementing sector policies. Quality standards and infrastructure are also included in this process. In this connection, development cooperation in Ghana, for example, supports the introduction of a national standard (the Ghana Green Label) which consists of somewhat lower criteria than GlobalGAP and is therefore easier for many smallholders to fulfil.

The PTB has developed a participatory instrument called CALIDENA which is aimed at systematically and sustainably improving the quality infrastructure (QI) in the partner countries and making it more demand-oriented.⁵⁹ According to the evaluation by Bährge (2015), this instrument has succeeded in significantly improving awareness among value-chain actors concerning standards and regulations as well as the services offered by QI institutions. CALIDENA made little contribution to any demand-oriented improvement of the service offering of QI institutions, however.

Awareness-raising about (quality) standards, which is frequently carried out in the course of further training courses on improving production (IA 4), is a key activity both in structure-oriented value-chain promotion across the spectrum of actors and in the context of firm-centric development projects and programmes. Analysis of the promotion activities in the course of development projects and programmes shows that these activities to improve quality are a top priority because adherence to standards, especially quality standards, is a prerequisite for business success. In addition, expert interviews as well as an analysis by the Joint Conference Church and Development (GKKE, 2015) indicate that spill-over effects also emanate from these activities and influence quality standards elsewhere in the country.

For adherence to standards, it is important that the actors on the different stages of the chain are familiar with the required quality level and know how the production processes interact in order to achieve the desired quality. Information and awareness-raising activities are therefore carried out at the different stages of the value chain (including the provision of plant material or seed), not only under the auspices of private-sector commitment but also initiated by development

⁵⁹ In a participatory process, private actors from the value chain are brought together with national QI institutions to raise their awareness of quality aspects in value chains, and subsequently to support them in complying with national and international quality standards. At the same time the QI institutions gain a greater sensitivity to the problems of the value-chain actors.

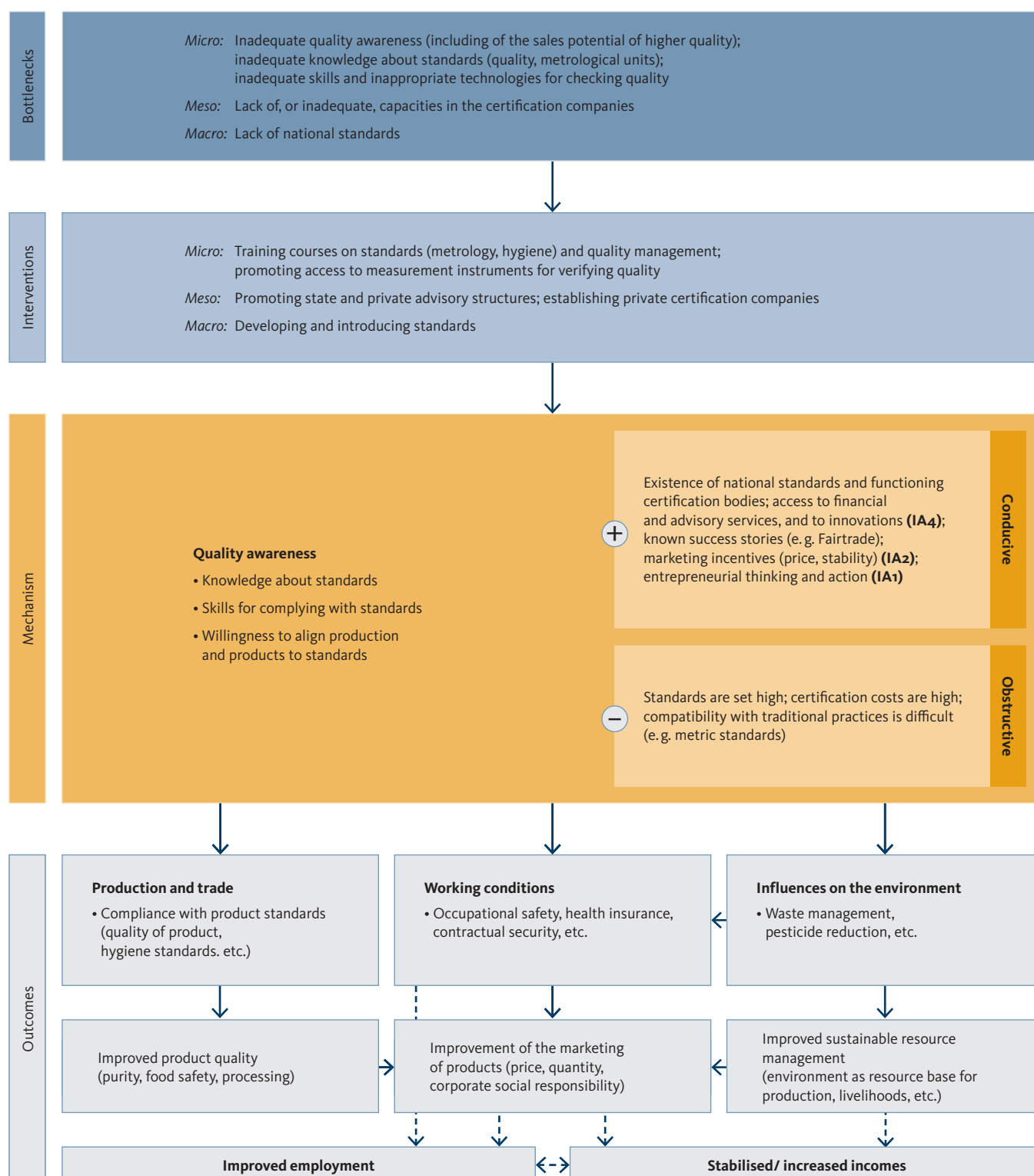
cooperation. These activities are supplemented with training courses on improved farming methods and processing techniques (IA 4). During the courses, actors are also provided with methods and measuring instruments (examples from the CS were KOR⁶⁰ kits, instruments to measure moisture or contaminant levels, and weighing scales) with which they can carry out independent quality controls or determine the quantities sold with precision. In the course of develoPPP.de projects, further training activities are carried out both for the improvement of technical capabilities and on quality issues (IA 4), while quality controllers are also trained so as to introduce quality assurance systems in the enterprises. This is necessary in any case because of the lack of quality infrastructure

in the partner countries. Moreover, it is a means of promoting the establishment of certification companies, as described in the pineapple case study.

Since certification is often a prerequisite for integration into value chains but is demanding and expensive, German development cooperation supports the implementation of group-based certification systems. Many value-chain promotion programmes contain initiatives on environmental standards, which are often introduced or advanced by means of (integrated) PPPs. Because of the high costs of certification, numerous demands are expressed for this to be supported by means of financing models.

⁶⁰ The KOR (kernel outturn ratio) is a measured value for determining the number of usable cashew kernels in a defined quantity of raw nuts.

Figure 15: Intervention Area 5: Quality standards and certification



Mechanism and changes in behaviour

Knowledge and awareness on the benefit of quality and metric standards, or on the necessity of adhering to these, improve quality management as long as actors have the know-how and the technical means of producing to the required quality grades. The introduction of HACCP, in particular, means changes to the processing techniques used by processing enterprises, the introduction of which initially entails increased time and effort. Access to advisory and financial services in order to invest, e.g. in improved technologies, is a central supporting component in this case (IA 4). Therefore promotion activities on quality and standards are mainly carried out in coordination with further training courses on farming and production techniques (organic, GlobalGAP). Improved marketing of goods produced in accordance with demand-oriented principles creates a major incentive for behavioural changes (cashew, pineapple, maize & rice CS).

For export, the fulfilment of standards like GlobalGAP is a necessity because the goods will otherwise be rejected. The incentive here is the opening up of a market. Other incentives are higher prices, purchase guarantees, or price premiums such as those paid by Fairtrade, for example. These incentives for quality improvement based on quality-aware demand are suppressed by state purchase programmes which fail to set quality criteria, as the rice case study in Burkina Faso shows. The introduction of measuring instruments so that quantities and quality can be determined precisely and transparently – as demonstrated by the maize, rice and cashew case studies – increase the actors' negotiating competence and power.

Quality improvement can be achieved more easily within established business relationships (IA 3) where the quality requirements of the product are transparent and thus comprehensible and realisable for the actors at the different stages of the value chain, than where the issues are poorly understood. A comparative study by Jaffee et al. (2011) comes to the conclusion that the link to a lead firm is a key success factor for the sustainable empowerment of smallholders to adhere to quality standards and participate in a value chain. It emerged from the maize, rice and cashew case studies that after training courses on quality issues, the actors within

the value chain demand higher quality grades from their respective suppliers in order to be able to produce or supply better quality themselves.

The level and quality of standards influences the options and hence also the willingness to produce according to standards. The introduction of standards for the label "Cotton made in Africa" (CmiA) is an interesting example of this.

Infobox 5: Introduction of the "Cotton made in Africa" standard

The label "Cotton made in Africa" (CmiA) was founded in 2005 by the Hamburg entrepreneur Michael Otto and has been promoted since 2009 under the "Competitive African Cotton Initiative" COMPACI, particularly by the Bill and Melinda Gates Foundation and the BMZ. One reason for the success of the broadscale introduction of CmiA⁶¹ has been that the barriers to entry are relatively low. This is taken care of by differentiating between exclusion and sustainability criteria. Whereas the exclusion criteria (such as the use of exploitative child labour, deforestation of primary forests, use of genetically modified seed) are relatively easy to meet and must be fulfilled immediately, more time is granted for fulfilment of the more demanding sustainability criteria (such as measures to maintain soil fertility, and controlled use of crop protection products). The actors involved must draw up management plans for improvement, however, and CmiA offers advisory support towards this end. Adherence to the indicators is evaluated according to a traffic-light principle, where "green" stands for sustainable management. Regular verifications (on a two-year cycle) ensure that the exclusion criteria are being adhered to and that compliance with the CmiA sustainability requirements is being improved. Ideally, there should be no more "red" assessments on sustainability criteria after four years. If fewer than 50 per cent of the sustainability criteria are certified as "yellow" or "green", or if it is repeatedly found that no improvement has been achieved, exclusion will be ordered (CmiA, 2015).

⁶¹ Compaci II, which follows on from CmiA, should reach 650,000 smallholders by 2015 according to programme documentation.

One advantage of the promotion of group-based certification is that the costs are lower; the other is that the entire group uses a similar production technique and produces similar quality grades. A certain “peer-group pressure” deriving from this not only makes it easier to establish standards, particularly environmental and social standards (e.g. Fairtrade), but also results in a larger quantity of consistent quality being produced and offered, which in turn promotes the negotiating power of the producers. Nevertheless, the high certification costs are a factor which, for many actors and for smaller enterprises especially, imposes a burden and a high barrier to entry. This is mainly to be viewed negatively if the additional effort and certification costs do not rapidly lead to a higher income. In this case, a directly perceptible correlation between quality and the profitability of business activity fosters the willingness to make changes in behaviour. In order to perceive these correlations and to organise the enterprise accordingly, a minimum level of entrepreneurial thinking is helpful. The Farmer Business Schools established by GIZ (see Infobox 4) support this.

The existence of national standards, certification organisations and quality infrastructure increases the acceptance of processes that are necessary for the production and marketing of quality products. Corresponding promotion activities on the macro and meso level can have a supporting effect in this regard. A project or programme of a certain size can ultimately also contribute decisively to attracting local partners and thus supporting the introduction of standards. For example, COMPACI succeeded in cooperating with a few local regulatory authorities, which have now adopted the CmiA standards themselves. In this way a lever effect arises because of the volume, which contributes to embedding standards in the partner countries.

Outcomes

In the course of the case studies, marked increases in quality in recent years were reported in all chains (staple foods and non-staple foods for export alike), which can primarily be

attributed to improved farming techniques⁶² and improved post-harvest practices and processing techniques (IA 4) (ExpInt; rice, cashew & maize CS; PR). Higher quality, improved marketing, higher prices and the increase in productivity per hectare are key elements for boosting income and employment on the level of smallholders. Adherence to standards in farming and processing improves quality and reduces the rejection rate (rice & cashew CS; ExpInt).

When goods have been quality-checked, the actors in the chain receive benefits in the form of higher prices and/or firm supply contracts and/or higher revenues e.g. because of consumer preferences (ExpInt; cashew CS; Jaffee et al., 2011). In conjunction with the support activities described in the other intervention areas, in this way the objective can be achieved of producing and marketing the product at the right time in the desired quantity and quality. In this connection, however, attention must be drawn to the availability of appropriate resources. This alone enables the actors to put their economic activity on a different footing and to produce in accordance with the desired quality criteria. At the same time, appropriate standards are a means of achieving more resource-conserving production (e.g. organic, Fairtrade, GlobalGAP), reduced use of crop protection products, or improved waste management.

For the producers, certification is very laborious and expensive (ExpInt; cashew & pineapple CS; Jaffee et al., 2011). At the same time, standards are creating targeted entry gateways which work mainly to the benefit of smallholders insofar as they have comparative advantages in a particular area, such as the labour-intensive cultivation of organic products. The fleshing out of a standard is a process for jointly determining how far the production of certified products is viable and attractive for smallholder farms, or whether it represents a barrier to entry that is almost impossible to overcome. According to expert opinion, social and sustainability standards are one means of achieving a certain downward redistribution of value creation in the chain towards the lower links in the chain.

⁶² This does not apply to maize in Ghana, where production is not being promoted by German development cooperation.



7.

RESULTS OF SYSTEMIC VALUE-CHAIN PROMOTION

7.1

Relevance

The promotion of agriculture and rural development has to be classified as relevant in view of the high economic significance of the sector and its potentials for poverty reduction and food security (see Chapter 2). Furthermore, as a consequence of the progressive globalisation and increasing integration of the global agricultural and food industry, it is reasonable to attach a high level of significance to agricultural value chains, which substantially define the economic processes and structures of agriculture in developing countries as well as their policies. Apart from global value chains, however, local and regional value chains increasingly also have an influence on agriculture in Germany's partner countries.

According to programme and project documentation, the target groups of value-chain projects and programmes consist predominantly of poor population groups, particularly smallholder farmers affected by poverty as well as people operating small or micro enterprises. Especially disadvantaged target groups include women, young people, unemployed people, veterans and other excluded groups, e.g. lower castes (PR). The poverty focus of value-chain approaches can initially be confirmed by the geographical location of many projects and programmes. Many value-chain interventions are carried out in agriculturally marginal locations and in regions of a partner country that are especially affected by poverty (PR). According to programme- and project-monitoring studies, these target groups are chiefly people and households who are structurally disadvantaged in terms of economic policy and who are excluded or impeded from participating in economic processes and structures. To that extent, the support of these target groups concentrates on a core problem of development policy. Upon closer examination, however, it can be observed that the concrete promotion is focused largely on "market-viable" or "market-oriented" sections of the population. Chronically poor households are not generally a target group of German value-chain promotion. This concentration on market-viable groups intensifies all the more when export-oriented products are the object of promotion. The promotion of staple food chains has a greater tendency to reach poorer population groups.

This problem of failure to reach the poorest population groups was also described by the OECD-DAC, with reference to the five Rural Worlds described in Section 2.1.1. According to this breakdown, there is probably only limited scope for integrating Group 3 into value chains as producers, and none at all for Groups 4 and 5. Households in Group 3 and to some extent Group 4 could possibly be included by virtue of paid employment for other households or agricultural enterprises. Since German value-chain projects and programmes take smallholders as their target group, Groups 4 and 5 – the groups of prime importance for a poverty-reducing effect – are not covered. It remains to be examined on a case-by-case basis to what extent the project or programme has an employment-enhancing effect and, if so, whether households from Groups 4 and 5 can thereby be included in the chain and thus also benefit from the promotion.

Over and above the relevance to poverty, the choice of the product to be promoted also determines the effect on food security. Smallholders make up a substantial proportion of global agricultural production. Nevertheless, many small producers themselves meet the criteria for food insecurity. It is therefore fundamentally worthwhile, with regard to food security, to orientate projects and programmes to this target group. In the case of staple food chains which predominantly serve the local market, relevance is inferred from the improved availability of foods and falling consumer prices. Export-oriented chains promote the food security of producers and of workers at the stages of transportation, trade and processing by the mechanism of boosting incomes and employment. Yet here, too, there are limitations on the relevance of value-chain promotion for food security: on the one hand, there is no certainty that a higher income will be invested in better food; on the other hand, additional factors like dietary balance and food safety are also significant. So far, little use has been made of other important criteria that contribute to the relevance of value-chain promotion for food security, such as the conscious choice of (micro-) nutrient-rich products or the promotion of processing/refinement into nutritionally valuable products. Furthermore, the relevance of value-chain promotion for food security is higher if important parameters for food security like access to clean drinking water and health services are in place. In this assessment of the limited relevance of value-chain promotion for food

security, it must be borne in mind that food security has only been explicitly incorporated into value-chain promotion very recently, so only a very small body of experience is available as yet. Nevertheless, the results based on the findings from the case studies appear to be robust, since the selected projects and programmes have already been pursuing the objective of food security for a number of years.

With regard to the objectives and strategies of the partner countries of German development cooperation, value-chain promotion is fundamentally appropriate and up-to-date as a development approach. On the basis of the portfolio review, a high degree of conformity can be attested between the growth-oriented ambition of value-chain promotion and the objectives and strategies of the partner countries. With regard to implementation, however, the case studies paint a markedly more nuanced picture. Development interventions that were highly rated for conformity to objectives in the portfolio review do not always make appropriate use of local procedures and structures. This can be observed both on the political level and in the practical implementation. Examples of inadequate conformity between policy and implementation are the poor use of coordination mechanisms on the political level of the partner country, the donor-driven selection of the promoted value chains, and the establishment of additional procedures and structures when it comes to implementation.

Within German development cooperation, too, agriculture is considered highly important for attaining the development objectives of poverty reduction and food security. The promotion of agricultural value chains has been systematically incorporated into the strategies and plans of the BMZ in recent years, and determines the activities on the implementation level. Meanwhile the focus of value-chain promotion on the development objectives of poverty reduction and food security corresponds to the central interdepartmental objectives of the German Federal government (cf. BMZ and BMUB, 2015). Accordingly it can be attested that the promotion of agricultural value chains, with its orientation to poverty reduction and to some extent also food security, is in harmony with the objectives and guidelines of the BMZ.

The German development-policy approach of value-chain promotion always rests on cooperation with private-sector actors. Furthermore, development partnerships with the private sector are a special characteristic of the approach, making up almost one-third of the German portfolio of agricultural value-chain promotion (see Section 4.2). Advocates of this high proportion of private-sector involvement highlight the multiplication of public funds via the private sector, and point to a natural convergence of objectives within the framework of market-oriented value-chain promotion. Critics doubt the coherence of private-sector and development objectives and accuse the participating companies of causing displacement effects and taking one-sided advantage. First it must be emphasised that development partnerships with the private sector account for almost half of German value-chain promotion in numerical terms only, whereas in terms of financial volume, a very different picture emerges: the majority of projects and programmes are supported with up to 200,000 euros of public money within the framework of the develoPPP.de programme. It became clear in the course of the portfolio review that such development partnerships are geared exclusively towards the promotion of export-oriented value chains. To that extent, the objectives of these projects and programmes must be compared principally with the objectives of other development cooperation programmes aimed at promoting export products.

The reduction of poverty and the promotion of food security are not generally among the promoted companies' explicit objectives.⁶³ In large part this can be explained by the companies' focus on export products. Development partnerships with the private sector are thus geared mainly towards working with market-viable groups, the majority of which are already involved in the production and/or processing of export products and tend to belong to the sections of the population less affected by poverty and food insecurity. This concentration on groups who have already attained market viability is also induced by the conception of projects. Projects and programmes in the field of cooperation with the private sector, particularly within the framework of the develoPPP.de programme, are essentially limited to a three-year term, which makes companies less willing to invest substantial time in building the capacities of disadvantaged groups (ExpInt).

⁶³ Companies that pursue a particular corporate social responsibility strategy, e. g. Fairtrade-certified companies, are one exception to this.

From the point of view of corporate strategy, the private sector's commitment in agricultural value chains is directed primarily towards building up specific supply chains. Their prime concerns in this regard are to establish stable business relationships with their suppliers and to ensure adherence to quality standards and delivery obligations. However, some supporting services of relevance to development policy, concerning infrastructure and the provision of production factors and financing, feature among the companies' direct objectives. In relation to these, a high degree of convergence of objectives can be noted on the level of activities and direct services (PR; Explnt; CS). The evaluation also showed that the more employment-intensive processing steps that take place in the partner country and the more aspects of environmental sustainability and social responsibility that are integrated into farming and processing, the greater the assimilation of private-sector objectives with development objectives.

7.2

Efficiency, coherence, complementarity and coordination

Value-chain promotion requires planning and implementation over comparatively long periods of time (Explnt, CS, PR). The reasons for this include the necessity for comprehensive value-chain, context and target-group analyses in advance of the promotion (Explnt), which serve as the basis for the selection of the promoted chains, and the development and adaptation of appropriate support services. Furthermore, a value-chain project must track the products over multiple vegetation cycles in order to be able to understand causes and effects or to identify and take account of external disrupting factors such as weather-related harvest losses. In any case, the adoption of technical and institutional innovations by the target groups, who are fundamentally rather averse to risks, is often a long-term process. And last but not least, establishing stable, trusting business relationships is a time-consuming process that requires support over a more extended period of time. From considerations of efficiency, it therefore makes sense to concentrate on just a few chains so that efforts can be focused on them more effectively.⁶⁴

Because of the complexity both of value-chain promotion and of the diverse socio-economic contexts in the partner countries, all in all there is a necessity to commit large amounts of time, financial and human resources. Value-chain components usually account for a relatively high proportion of the total support volume of projects and programmes (PR). At the same time, value-chain promotion is expected to make contributions to various development objectives. Nevertheless, despite the high level of resources often committed, the projects and programmes are still able to achieve the desired outcomes efficiently (Explnt). Particularly because of the considerable time-resource implications, many references were made to the problems that arise as a result of the revised commissioning procedure (not only Explnt & CS but also GIZ cross-sectoral evaluation on rural development (GIZ, 2015c) and OECD-DAC audit report (OECD, 2015b)).⁶⁵ This allows the implementing organisations far less flexibility, whereas they would actually need more in order to test particular activities over a certain period of time, for instance, and adapt them as needed if they did not deliver the expected outcomes. Moreover, the promotion cannot respond flexibly to economic and other dynamics, e.g. any shift in preferences in the destination countries or price-changes in international markets. Finally, some value-chain-specific activities require longer periods of time in order to deliver their outcomes; establishing trust, cooperations, and business relationships are just a few examples (Shepherd, 2007). The implementation of such support activities is made more difficult if no provision for long-term planning is put in place for projects and programmes.

Regarding the question of the extent to which the implementation of the objectives and support activities of German value-chain promotion was based on complementarity and division of work, the evaluation comes to mixed conclusions. As has already been clarified, ideally value-chain promotion is designed systemically, i.e. it addresses the various levels and intervention areas in order to deliver its overarching impact. Against this backdrop, the coherence, complementarity and coordination of promotion become crucially significant, since these factors urge a systemic approach. Within the scope of the portfolio

⁶⁴ The necessity of reducing the number of promoted chains so as to increase efficiency was also mentioned in various ways in the expert interviews. GIZ recognised the problem and discussed it in its cross-sectoral evaluation (GIZ, 2015c). In Ghana the MOAP began its promotion with 13 chains and reduced this number to 6 over the years, in order to be able to focus on these chains more effectively.

⁶⁵ The OECD-DAC audit report (OECD, 2015b) pointed out the discrepancy that has arisen following the shortening of TC programmes to three years, whereas FC programmes still have terms of up to 7 years. This mismatch makes coordinated or joint implementation of activities more difficult. In Ghana, GIZ and KfW are jointly responsible with the PTB for the implementation of the MOAP; cooperation between the implementing organisations is also noted occasionally but it would be wrong to call it systematic cooperation. This could produce distinct synergies, however, given the demanding application procedure for the OVCF, and thereby contribute to more effective use of the OVCF.

review, a total of 51 projects and programmes⁶⁶ were categorised as systemic or found to have systemic components. In 37 of these projects and programmes, almost three-quarters (73%) of the total, cooperation arrangements between TC and FC are taking place. At least formally, then, the vast majority of systemic value-chain promotion by state development cooperation is coordinated between the implementing organisations based on a division of work. The intensity of cooperation varies greatly, however, and ranges from loose declarations of intent and provision of mutual support in certain areas to fully integrated joint programmes. So these “on paper” cooperation arrangements only give a limited insight into how far complementary, coherent and systematic coordination of implementation actually takes place between the parties concerned.

The findings from the case studies and expert interviews point to the conclusion that the potential synergies arising from cooperation between TC and FC, particularly under joint programmes, could be exploited more consistently. It was found in the case studies that in the implementation of both contract-farming systems and refinancing mechanisms, more intensive cooperation and coordination between the German development cooperation organisations would increase the efficiency of the activities. Particularly access to financing, one of the key bottlenecks in value-chain promotion, could be tackled more effectively by giving FC greater involvement. In the course of the evaluation it also became clear that combined approaches containing both structure-oriented and firm-centric components (including FC measures) hold particular potential. In order to ensure that individual activities interact with and complement one another usefully, a high degree of coherence, complementarity and coordination throughout the implementation is indispensable. To date, this has only been the case to a limited degree.

As regards the coordination of projects and programmes with other bilateral and multilateral donors and organisations, the overall impression from the case studies was a critical one: individual target groups were repeatedly receiving similar training courses or promotion activities from different organisations, without any coordination being practised on the donor side. This concentration of promotion activities

was observed particularly in the vicinity of urban centres in the project regions, whereas individual target groups in more remote rural areas reported that they lacked support. Especially clear evidence of such imbalanced distribution and lack of consultation was exemplified by a Burkinabe association of processors, which had responded by seizing the initiative itself to improve the coordination of donors and their promotion activities. A further example of poor donor coordination is found in Ghana, where coordination between the donors working in the agriculture sector was described as not very effective, although a dedicated working group had been set up for the purpose.

Finally, for the purposes of effective systemic promotion and efficient vertical integration, the geographical focusing of development cooperation programmes is very emphatically called into question in the context of value-chain promotion. The regional priority of promotion by the development partner is normally agreed by the government of the partner country within the framework of a dialogue process, taking the views of all development partners into consideration. Consequently, value-chain promotion activities are frequently linked to the localities in which the primary product in the chain is produced. These localities are not necessarily those of the processing enterprises and exporters, most of which are established near to certain centres (maize & pineapple CS). Geographical delimitation of the promotion without prior actor-mapping can lead to a situation where important actors are left outside the active area of projects and programmes and are not then (eligible to be) integrated into the promotion. With reference to the development objectives, this becomes all the more of a dilemma if, for example, development cooperation concentrates on especially low-income regions of a country which attract very few (export) companies because of their inadequate communications and transport infrastructure.

In the final analysis, the potential efficiency gains of large trans-regional programmes like the ACi need to be pointed out. While the advantages and maybe also disadvantages of such approaches were not assessed as part of this evaluation, there are clear indications that marked efficiency gains can be achieved in this way, particularly for export products.

⁶⁶ These consist of 48 Technical Cooperation and 3 Financial Cooperation programmes (see Section 4.2).

7.3 Effectiveness

The present evaluation has highlighted increased production and productivity, improved quality and quality management, and improved marketing as three basic outcome areas (see Section 4.4). The conclusion it draws is that the major bottlenecks cannot be solved via individual intervention areas; what is necessary, instead, is systemic promotion whereby all five intervention areas – or the activities in these areas – have a specific significance depending on the given bottleneck. The outcomes “increased production and productivity”, “improved quality and quality management” and “improved marketing” are crucial in order to achieve the higher-order outcomes of boosting incomes and employment as well as the impact. The outcomes will be elucidated in the following section, while contributions to the overarching impact are presented in Section 7.4.

7.3.1 Increased production and productivity

The results of this evaluation support the assumption that the promotion of value chains makes a key contribution to increasing the production of agricultural goods. The results of the case studies and expert interviews show that gains in production are driven partly by advisory work on innovative farming practices but also, importantly, by creating access to new sales markets. New opportunities for marketing in regional, national and international markets provide incentives to invest in boosting the value chain’s overall production. From the viewpoint of experts, such demand-oriented incentive systems have distinct advantages over purely supply-driven development strategies: they ensure that the additional production is matched with buyers, whose purchase of the products then helps to cover the costs of the investment (Explnt). Further important factors for demand-based increases in production are standards and certificates. They are conducive not only to increasing the quantity of products but also to improving their quality (see also Section 7.3.2; Explnt; CS; PR). Access to new markets and the availability of market information contribute to reducing transaction costs and post-harvest losses as well as to establishing new business relationships. Together, these effects advance the transition from subsistence farming to commercial agriculture.

The analysis of the individual intervention areas (see Chapter 6) emphasised the organisation of the actors in a value chain and their cooperation with one another as the central mechanism for boosting productivity. Productivity-enhancing processes such as product improvements, standardisation, or reduction of post-harvest losses can be achieved by means of organised cooperative action. The boost in productivity creates the possibility of increasing the total production of a chain, and hence the availability of high-quality products. With better organisation of the individual actors, additional scaling effects can be achieved. These results confirm that value-chain approaches facilitate increased production and productivity by promoting organisation and cooperation.

The promotion of entrepreneurial thinking and action (IA 1) was presented as an effective intervention area for the promotion of organisation and cooperation. Furthermore, the actors were able to acquire basic skills, techniques and support services for increasing productivity via activities in Intervention Areas 2, 4 and 5. It emerged from the case studies that the interplay of all intervention areas is particularly beneficial for increasing production and productivity on the level of primary producers and processing enterprises, since this is where the major bottlenecks are to be found (maize, pineapple, rice & cashew CS). In accordance with this, the majority of capacity development activities also take place on the levels of production and processing (PR; CS). Provided that the identified bottlenecks can be adequately addressed, increases in production and productivity that are based on successful demand-orientation will result in growth and stabilisation in incomes and employment.

7.3.2 Improved quality management

In relation to the improvement of quality management, the evaluation investigated to what extent activities for capacity development within a value chain resulted in quality-enhancing farming and processing practices being implemented and post-harvest losses being reduced.

In the case studies, marked gains in quality can be noted for all chains over the past few years. Apart from the introduction and implementation of standards, other major reasons explaining the effective improvement of quality management

and the gain in quality were the use of new and successful farming techniques, the improvement of post-harvest practices, and the application of new and efficient further-processing techniques (ExpInt; rice, cashew & maize CS; PR).

The implementation of standards varies in its significance depending on the particular chain and the markets served. This variation in significance is evident mainly between the maize and rice staple food chains, which are aimed at national markets, and the export-oriented pineapple and cashew chains, where the quality management system is geared to international markets. In the maize value chain, considerable progress was successfully made by promoting national quality standards effectively. In the rice value chain, in addition to improving supply by means of improved further-processing techniques and awareness-raising about standards, the attempt is being made to boost demand for Burkinabe rice by means of advertising. The main impulses for raising quality in the pineapple and cashew value chains come from international standards and certificates. In the pineapple value chain, the successes achieved through international incentives will be complemented in future by the additional introduction of a national standard. To what extent the expected rise in demand from a growing middle class will be sufficient to amortise the necessary investments is something that remains to be seen.

The improvement in quality management is based not only on the activities in Intervention Area 5 but also to a substantial degree on the interplay of the mechanisms of entrepreneurial thinking and action (IA 1) and organisation and cooperation (IA 3) (ExpInt). In the interplay with Intervention Area 4 in particular, and in conjunction with the activities described in the other intervention areas, the objective can thus be achieved of producing and marketing the product at the right time in the desired quantity and quality. However, the systemic implementation of promotion activities makes heavy demands upon the actors in the chains. In this connection, attention must be drawn to the availability of appropriate resources. This alone enables actors to put their economic activity on a different footing and to produce in accordance with the desired quality criteria.

7.3.3 Improved marketing

In the case studies, challenges in the area of marketing were identified as key bottlenecks in value-chain promotion. The results from the expert interviews point in the same direction. Accordingly, marketing represents a kind of cross-cutting bottleneck, i.e. one which extends across a large number of actors at multiples stages of a value chain, and thus makes high demands upon the promotion.

It had already become evident from the portfolio review that marketing was an area in which there were a variety of promotion activities relating to almost all stages of value-chain promotion in a given partner country. In the case studies, the expected increases in sales were observed. However, the associated profits are not always evenly distributed across all stages of a value chain. It must therefore be assumed that the successful results of marketing-promotion activities at multiple stage of the chain are not automatically distributed equally to all actors. In the cases studied, as expected, a certain formative and market power resides with the medium-sized and large processing companies (cashew CS), which have substantial shares in the structuring of a chain. Generally, spill-over effects to the lower stages of a value chain can be noted, however (CS; ExpInt). Attention was drawn to the problem of state interventions in the rice case study, while the consequences of price fluctuations for the functioning of the chain were elucidated in the cashew case study. In this connection, reference must also be made to the repeatedly cited failure of producers to adhere to contracts, which causes trouble for the processing enterprises and is detrimental to the functioning of the chain and the success of the enterprises. The processing enterprises can only exercise their market power when markets are demand-oriented – and when producers have no alternative marketing channels. In this regard, some of the key successes across the stages of a value chain include the improvement of supply contracts and the exchange of information about quantity and quality requirements, i.e. continuity and stability and marketing through improved organisation and cooperation.

In Chapter 6 the promotion of entrepreneurial thinking of action (IA 1) and of organisation and cooperation (IA 3) were emphasised as key mechanisms for the effective improvement

of marketing (Explnt; CS). In the case studies most of all, evidence could be found that marketing had been improved by promotion in this intervention area. The professionalisation of business planning results in both higher sales of products and higher profits. Beyond this, improved business management brings about more possibilities for gaining access to relevant markets and building business relationships with other actors. Activities to improve marketing become more effective once actors have better access to market information (IA 2). The effective interplay of these factors was reinforced by adapted agricultural advisory and/or financial services (IA 4) (maize, rice, pineapple & cashew CS; Explnt). Positive outcomes in marketing were mainly achieved when the promotion of organisation and cooperation (IA 3) were interlinked with other intervention areas, such as the introduction of improved technologies (IA 4) or standards (IA 5).

7.4 Overarching development impact

7.4.1 Poverty reduction

According to the overarching impact logic, the promotion of agricultural value chains by increasing production and improving marketing and quality management, and the resulting increase in incomes and paid employment, contributes to poverty reduction (see Section 4.4). The results of the evaluation show that these target dimensions do indeed constitute the main causal pathways on the way to poverty reduction, and hence, that the impact logic is fundamentally plausible. Both in the case studies and the portfolio review, positive effects can be attested on production, marketing, and quality management as well as – taking a broader view – on the incomes from agricultural employment. To what extent the dependent employment consists of permanent, remunerated employment, could not be assessed conclusively (on this, cf. CS and PR).

The evaluation showed that value-chain promotion on the target-group level has positive effects with regard to poverty reduction. The findings also confirm, however, that even in the event of promotion, the ability to participate in a value chain is dependent on having a minimum level of resources. In primary production, for example, these are the available farmland or the ability of households to invest, whereas in

dependent employment, the level of education and training can be a factor. The chronically poor (Rural World 5; see Chapter 2.1.1) are therefore not reached by means of value-chain promotion. Even so, the vast majority of households reached can still be categorised as poor. However, the way in which the described barriers to entry constrain the poverty-reducing effect should be consciously incorporated into the design of the promotion. The danger here is that by promoting agricultural value chains – especially in primary production – although a contribution to greater value creation and increased income is achieved overall, the promotion largely works to the benefit of actors whose barriers to entry are lower because they are endowed with larger enterprises and more resources. They therefore have greater scope for action and are better positioned to take certain risks. This is confirmed in the literature for other contexts as well (Humphrey and Navas-Alemán, 2010; Kidoido and Child, 2014). Target groups who lack this essential minimum level of resources are therefore better integrated into a value chain by means of paid employment in primary production or in further-processing enterprises (cf. USAID, 2014). The involvement of large enterprises (Rural World 1) in the promotion appears to be worthwhile mainly because this is a way in which paid employment opportunities can be generated, as shown for example by the African Cashew Initiative. The greater barriers to access experienced by poorer households and the difficulties of integrating them long-term is a fundamental challenge in value-chain promotion (on this, cf. also Shepherd, 2007; Seville et al., 2011; USAID, 2014), which means a considerable expenditure of time and other resources for development cooperation.

A further constraint regarding the effectiveness upon poverty reduction results from the fact that the value-chain approach is normally geared towards individual products, without looking either at the given system of production with its specific farming practices or at the overall living situation of the households. In contrast, other promotion approaches in rural development (particularly the livelihoods approach) take into account the overall living circumstances of the promoted target groups. Livelihoods in rural areas of developing countries are characterised by highly diversified strategies for meeting survival needs, i.e. families generally earn their living from a

variety of sources of income. Where resources are limited, particularly the resource of the family's labour, the promotion of a product has effects both on the system of production and on the livelihood strategy of target groups. Therefore, inferring sustainable poverty reduction on the basis of gains in income that were generated by promoting a value-chain product is fraught with a number of uncertainties.

7.4.2 Food security

Increasing the availability and quality of foods and improving access to foods are the central causal pathways for working towards food security (see Section 4.4). On the basis of the empirical evidence from the portfolio review and the case studies, the evaluation comes to the conclusion that particularly by promoting staple foods, projects and programmes contribute to increasing production, lowering post-harvest losses, improving quality, enhancing food safety and thus improving the local availability of high-quality nutritional products. This can indirectly benefit the poorer strata of the population in particular if it makes (staple) foods available at lower prices. In contrast, the promotion of export-oriented products achieves contributions to food security via increased incomes and thus by improving people's access to food (cf. also ADB, 2012; IOB, 2011). According to the FAO (2013a) gains in income contribute to food security particularly when they are generated by women, since they are more likely to invest the money in nourishing their families. The evaluation found no indications that the production of export-oriented products impairs food security by displacing subsistence agriculture. Large projects and programmes in particular, such as the promotion of sustainable smallholder cocoa and food farming in West and Central Africa, support the production of foods as well as the export crop. In this way, synergy effects in relation to food security can be achieved.

Although food security has only recently found its way into the objectives system of value-chain promotion, based on the empirical evidence from the case studies, positive contributions via the described causal pathways can be expected. Likewise, the programme and project documentation makes reference to positive effects in this area (PR). However, the methodology of this evaluation does not permit any statement of how far

the observable increases in the quantitative availability of food actually benefit needy consumers, and whether the additional income generated is really used to improve the nutritional situation of families (CF). Nevertheless, it was attested both in the case studies and in the course of the portfolio review that key areas like the promotion of nutritional knowledge and awareness are barely an element of German value-chain promotion, so that according to the current state of knowledge, certain potential effects remain unexploited. For this reason, internationally it is frequently recommended to include sectors like education, health, and social protection in national promotion strategies for the improvement of food security (e.g. FAO, 2013b; FAO, 2014; World Bank, 2014).

7.4.3 Gender equality

Alongside poverty reduction and food security, the trans-sectoral theme of gender equality is a further target dimension of the promotion of agricultural value chains, especially in light of women's structural disadvantages. In the project documentation from the programmes, gender objectives usually feature as cross-cutting objectives, which is indeed a binding requirement in German development cooperation. Women do benefit from the projects and programmes via the general improvement of the economic situation for smallholders and small processing enterprises, but the specific promotion of women is subject to constraints. Often there are schematic targets, e.g. that women must make up a certain percentage of the promoted smallholders; these targets, however, are seldom plausibly based on an analysis of the cultural and economic realities in the promotion region. This may be explained in part by the fact that ex-ante target-group analyses are still not the norm.

As was also confirmed in the case studies, women are frequently structurally disadvantaged. The principal causes of this disadvantage include poorer access to agricultural resources as well as limited access to local organisations, which results in restricted participation in decision-making processes. It must also be borne in mind that clear demarcations are frequently in place determining whether women or men are responsible for particular agricultural products, or how tasks are distributed in each particular stage of production. This can give rise to the situation that

value-chain promotion does not reach its intended target group of women, since they do not work with the product in question or do not receive an appropriate share of the profits (PR; CS). For these reasons, individual projects and programmes in the German portfolio have activities in the programme geared specifically to women, such as training programmes open only to women. The case studies also revealed the potential benefits of successful efforts to integrate women into value chains: women who have land of their own, farm it themselves, and retain control over the profits from their production reported marked improvements in their life situations. Beyond this, it became clear that many employed positions in processing are occupied primarily by women and offer them income-earning opportunities. At the same time, it supports the food-security-enhancing aspect of higher incomes, since women are more likely than men to invest their earnings in nourishing the family.

7.4.4 Environmental sustainability

So far there is little, if any, explicit incorporation of environmental aspects into the conception of value-chain promotion. In the same vein, only piecemeal evidence at most could be gathered from the case studies regarding the consequences of value-chain promotion for environmental sustainability; this yielded a mixed picture but with a generally positive trend. For example, agricultural advisory work, which is an important element throughout value-chain promotion, communicates resource-conserving farming and processing methods. Furthermore, sustainable resource management is supported by means of certification schemes like “organic” or “Fairtrade”, which are included primarily in the promotion of export-oriented value chains. In some instances, environmental aspects are an explicit issue in other development cooperation projects and programmes within the same region or the same country. In Ghana, for instance, there is a project dedicated to the adaption of agricultural ecosystems to climate change; however, there was no sign of any cooperation with the value-chain promotion carried out under the MOAP programme.

Since environmental aspects are not given separate consideration in the conception of projects and programmes, it can be assumed that a great deal of sustainable resource management

potential is not being considered, or that promotion might even produce negative outcomes. Particularly in view of the Environmental and Climate Assessment introduced in 2011, the specified objective should rather be that German development cooperation activities do not result in negative environmental consequences; as yet, however, there is no publicly available evaluation of the effectiveness of the Environmental and Climate Assessment. Other studies on the environmental consequences of promoting agricultural value chains likewise come up with mixed results and, at the same time, emphasise the hazards arising sporadically from risks such as water pollution or soil degradation (cf. IOB, 2011).

7.4.5 The broadscale effectiveness of promoting agricultural value chains

Broadscale effectiveness is found when programmes and projects are designed in such a way that their effects extend to a larger number of people in the long-term. This can be achieved in different ways: firstly, through radiating or spill-over effects, e.g. when changes in behaviour spread beyond the direct target groups and are adopted by other groups; secondly, when projects and programmes contribute to structure building or networking between institutions and actors; and thirdly, when projects and programmes are models of good practice and are replicable in other sectors or countries (cf. Caspari, 2004; Messner, 2001).

The promotion of agricultural value chains harbours great potential with regard to all these dimensions, and can therefore reach a very high level of broadscale effectiveness. To begin with, individual activities within the overall system of a value chain can already bring about beneficial radiating or spill-over effects: if one activity – e.g. the development or support of local processing – succeeds in overcoming a bottleneck within the chain, then this has an effect beyond the direct intervention on the entire value-chain system, since actors from different parts of the chain benefit from it. Furthermore, individual activities radiate to other value chains and thus create ripple effects beyond the primary target groups. For instance, basic competencies are conveyed by training courses on entrepreneurial skills. The successful support of a company's business activity can thus result in benefits for business partners in other value chains, which come about through the

mechanism of securing or expanding its supply relationships. Such broadscale effectiveness is possible for a large number of different activities in the value-chain promotion portfolio – for the promotion of market knowledge and information, for the improvement of market access or infrastructure, or the transfer of knowledge on farming methods, quality standards and certification (cf. Seville et al., 2011). The main activities to be emphasised in this connection are those on the meso or macro levels. These have special potential to deliver wide-ranging effects both within individual value chains but also beyond them. For example, this is true of developing or supporting sectoral and/or trade policies, or the legal and taxation system, or providing market information systems or infrastructure (cf. Shepherd, 2007).

As to the question of whether transferred skills and behavioural changes spread beyond the target groups, apart from the comparatively overt radiating effects described above, no definitive answer can be given. While some comparative studies arrive at the conclusion that neighbouring groups do not benefit from the introduction of new technologies (Waddington and White, 2014), other studies find that both these and new business models are adopted by other actors (USAID, 2014). Undeniably advantageous for broadscale effectiveness, on the other hand, is the train-the-trainers approach of training multipliers, which makes it possible to extend skills and behavioural changes to the greatest possible number of people, even beyond the end of the project or programme in the best-case scenario. In addition, evidence was found in the case studies that the founding of cooperatives and the use of group marketing also spread beyond the target groups.

Furthermore, individual activities within the value-chain promotion portfolio make a targeted contribution to structure building or to networking between institutions and actors (see Section 7.5). Activities of this kind unlock scaling-up potentials both vertically and horizontally, by creating suitable dissemination structures across multiple levels and simultaneously promoting communication and network building. It is especially important in this regard to ensure that the necessary framework conditions are in place on the partners' side, and to involve the partners as intensively as possible: as the

case studies also clearly showed, broadscale effectiveness is facilitated if the partners feel a strong sense of ownership and if key actors are involved, since these facilitate an effective and far-reaching use of dissemination structures (cf. GIZ, 2015a).

Finally, value-chain promotion is essentially a highly replicable approach. One reason is that, in the broad sense, it relates to every sequence of value-creating activities geared towards the manufacture of a product, and hence to an elementary process that takes place daily and worldwide in all social contexts. In addition, value-chain promotion does not denote a rigid and clearly defined package of measures but, rather, comprises a wide spectrum of possible promotion activities which can be employed flexibly in order to address different bottlenecks, priorities, actors or levels. The model character of this approach already became clear in the course of the portfolio review, during which it was possible to identify mechanisms and intervention areas which could subsequently be used as a frame of reference for effective and systematic analysis of the projects and programmes examined in the case studies. This possible degree of categorisation and standardisation is also apparent from the multitude of guidelines and manuals devoted to different perspectives and models for the design of value-chain projects and programmes (e.g. GTZ, 2007; UNIDO, 2011; Webber and Labaste, 2010). On the one hand, this model character of value-chain promotion conveys an immense potential for broadscale effectiveness, since individual projects and programmes offer the scope to employ a wide spectrum of measures which have already been tried and tested in various contexts and can therefore be seen as more widely diffusible solutions to problems. On the other hand, the lack of a clearly defined promotion portfolio goes hand in hand with high requirements upon the design of the given projects and programmes, since these cannot simply be copied but must be chosen and agreed with due regard for the given context (cf. Shepherd, 2007). Ultimately, however, this flexibility – combined with the inherently good replicability of the approach – holds out the greatest potential for the broadscale effectiveness of value-chain programmes, for this combination enables projects and programmes to be transferred, with the necessary adaptations if need be, to a variety of sectors, regions or countries. In this way, broadly-based programmes like the African Cashew Initiative are possible, which are

dedicated to one value chain in several countries simultaneously, make use of existing synergy potentials, and can extend their effects to a very large number of people.

7.4.6 Human rights principles

The analysis of human rights principles is aligned with the BMZ “Guidelines on Incorporating Human Rights Standards and Principles” (BMZ, 2013c). For the purposes of this evaluation, there were two prominent aspects to be investigated: regarding poverty reduction, the question was how far value-chain promotion engages with the needs of disadvantaged groups; and regarding food security, the study explored how far value-chain promotion makes a positive contribution to improving it.

In order to answer these questions, in the course of the expert interviews and the portfolio review the evaluation team investigated the extent to which target group and context analyses were carried out in advance of the promotion which permitted the identification of disadvantaged and food-insecure groups. What became clear was that, in many cases, no detailed target-group information is available at the beginning of programmes and projects. In value-chain promotion, the selection of target groups largely takes place indirectly, through the choice of value chain. Here it became evident that poorer households tend to be integrated in staple food chains because of their orientation to subsistence farming. This means that in many cases, poorer target groups are most likely to embark successfully on market-oriented production as a result of the promotion of staple food chains. As a rule, however, there is too little time for comprehensive target group analyses in advance or at the beginning of projects and programmes.

As discussed earlier, chronically poor households are not a target group of value-chain promotion because the level of resources they possess is inadequate (PR; ExPlnt; CS). This was also emphasised in the latest GIZ evaluation report (GIZ, 2015d). Another factor often given insufficient attention is the structural disadvantage of women, which ultimately means that it is not sufficiently incorporated into projects and programmes. Moreover, women who are already in possession of a certain level of resources are more likely to receive promotion. If the described groups are not reached by other

measures, from a human rights point of view there is a danger of marginalised groups being disadvantaged in the course of value-chain promotion.

Value-chain promotion, when it is focused on staple foods, makes contributions to food security by improving the availability of and access to food. In the case of export-oriented products, it contributes via the mechanism of improving access to food only. No indication was found in any of the case studies, including those involving export products, that value-chain promotion results in the displacement of subsistence agriculture. This finding is supported by the literature (Seville et al., 2011). Hence this point is non-critical from a human rights viewpoint. In this connection, all that need be reiterated once more is the limited effectiveness of value-chain promotion in relation to food security (see Section 7.4.2).

7.5 Sustainability

This evaluation explores sustainability on two levels: on the level of the promotion it examines whether its positive outcomes are lasting. But it also looks at the higher-order level of sustainability – which took on further importance as a result of the adoption of the *Sustainable Development Goals* in 2015. With this in mind, sustainability in general can be subdivided into “social”, “economic” and “environmental” sustainability. Since the latter is a trans-sectoral objective of German development cooperation, it is treated as an objective category in its own right in Section 7.4.4. Under the heading of social sustainability, a number of aspects can be grouped that are significant for poverty reduction (see Section 7.4.1) and the fulfilment of human rights principles (see Section 7.4.6). With regard to value-chain promotion, it may subsume contributions to poverty reduction combined with inclusion and participation of marginalised groups as well as efforts to create jobs. Whereas a positive effect on social sustainability can be attested for value-chain promotion on the basis of its contribution to poverty reduction, the less than adequate inclusion of women that is sometimes observed in this context must be seen as a limitation. Finally, economic sustainability has to be viewed against the backdrop of a continuously

growing global population that needs to be fed. From this perspective, agriculture can be viewed as a sustainable sector, especially given the shortage of other options. External risks such as the impacts of climate change – and additional risks that will be mentioned below – can threaten the economic sustainability of a chain. The final question that surfaces at the interface between social and economic sustainability is how the value-creation achieved within the value chain is distributed; what matters most in this connection is how much of a share of the value created is received by those on the lowest levels (primary producers, paid employment).

Since no final reports were available for the majority of the identified value-chain projects and programmes and the case-study programmes are still in progress, assessments about the sustainability of the promotion and the associated challenges here are limited in many instances to a mid-project or mid-programme perspective. In accordance with the various intervention areas (see Chapter 6), activities can nevertheless be highlighted which are central elements of value-chain promotion and which are basically structural in effect and beneficial for sustainability. Principal among these are activities on organisational development and on vertical and horizontal integration (IA 3). Establishing or strengthening value-chain committees, (umbrella) associations and farmers' organisations increases the degree of organisation within the chains and thus supports the sustainability of the promotion in various ways: by fostering exchange between the value-chain actors, these structures can contribute to sustainably reinforcing contractual supply relationships, particularly against the backdrop of the observed fragility of contractual relationships. In addition, measures for organisational development and the promotion of business relationships contribute to sustainable processes of making the required product standards known to actors at the different stages of the chain. The establishment of regional and national associations also ensures that bodies exist which represent the value chain's interests and can exert an influence on the shaping of legal and regulatory framework conditions. However, the case studies also showed that the existence of such institutions is endangered once the promotion has ended, unless it is possible to instil a sense of ownership among members. This is especially the case if the organisations are perceived as externally initiated and not geared towards

the needs of members. It is therefore beneficial to rely on pre-existing structures or organisations and to support them in making an attractive service-offering available to their members. At the same time, the question of how organisations and their activities will be financed after the promotion has ended must be addressed from the outset, since this will be a prerequisite for the organisations' ability to offer their services to their members in the long term. A further conclusion that can be derived from these considerations is that the sustainability of the promotion is also influenced by the choice of product, and that the advantageous products are those which already play an important role in the given region and therefore tend to have adequate organisational structures in place.

A weak sense of ownership on the part of the actor groups also jeopardises the sustainability of activities in other intervention areas. This applies to the provision of inputs, technical innovations and infrastructure, for example. It was observed in the case studies that donated inputs were not maintained or had fallen into disrepair only a few years after they were provided.

Furthermore, the sustainability of promotion is also endangered by external risks which have already been discussed in the intervention areas. For value chains on export-oriented products, changes in world market prices and trends can be mentioned as the main risks of this nature. For instance, there was a shift in consumer preferences in Europe in around 2005 affecting the preferred pineapple variety, which led to a temporary collapse in Ghana's export-oriented pineapple industry. In the cashew chain in Burkina Faso, as a result of high demand in the global market, producers sold their cashew nuts to foreign traders who were able to pay them higher prices; this caused a slump in deliveries to domestic processors. Similarly, in any given scenario, variations in weather patterns or the long-term impacts of climate change can be detrimental to the sustainable outcomes of value-chain promotion.

To what extent the companies promoted within the framework of development partnerships remain in business once the promotion has ended depends upon a large number of factors. A few of these factors – like regulatory, political and social framework conditions, global market trends and prices,

or natural disasters – are beyond the influence of the promotion. However, factors were identified in the course of the evaluation which determine the competitiveness of companies and hence also the sustainability of the promotion. These include successful optimisation of the processes used in manufacturing and processing, and the establishment of reliable business relationships. Both of these positively influence the competitiveness of companies. With regard to the optimisation of processes in manufacturing and processing, the question of mechanisation must also be addressed. On the one hand, it can be necessary in order to increase competitiveness, but on the other hand, it can reduce jobs in the low-wage sector, particularly in processing. This could be counter-productive to development objectives like the creation of employment in processing. Nevertheless, it can result in the creation of jobs in primary production (pull effect) if the demand for raw materials increases due to a rise in processing. Basic and further training courses, many of which are carried out within the

framework of development partnerships, are sustainable – as the example of the ACi shows – even if those who have been trained are not immediately offered employment, because the trained actors have additional options for action based on the training they have received.

The sustainability of activities in the area of quality standards and certification depends on how far the actors can derive a direct benefit from compliance with standards in the form of guaranteed sales, higher prices, etc. The results of the evaluation show that this is principally possible when larger firms are involved as buyers, when stable business relationships can be built up successfully, or when larger initiatives like CmiA step in and guarantee sales. Setting up quality infrastructure and certification institutions makes it easier and cheaper to control standards and contributes to the sustainable diffusion and establishment of standards in the partner countries.



8.

CONCLUSIONS AND RECOMMENDATIONS

The present evaluation report relates to the German portfolio. Nevertheless, the conceptual design of both the evaluation and the analysis of the value-chain approach also took account of international approaches. The conclusions derived from the results of this evaluation and the recommendations based upon them are directed to the relevant actors of German development cooperation (BMZ, GIZ, KfW, PTB, sequa, DEG). The recommendations are oriented to the strategy development and implementation of value-chain promotion projects and programmes. The former are addressed primarily to the BMZ, and the latter to the implementation organisations.

The recommendations come at a point in time where German development cooperation has already gathered extensive experience with the promotion of agricultural value chains and is now looking to build on this – especially under the umbrella of the BMZ special initiative “One World, No Hunger” – to intensify its previous efforts. The evaluation thus contributes to the continuing design and integration of value-chain promotion, as a development-policy approach, in projects and programmes promoting agriculture, rural development and food security. Against the backdrop of the constantly rising importance attached to comprehensive sustainable development, the growing integration of social, economic and environmental objectives can be attested in development cooperation projects oriented to the agricultural sector.

The first section of this chapter deals with the relevance and outcomes of value-chain promotion on the development objective categories studied. Subsequently, recommendations are made for the conception and implementation of complex projects and programmes for the promotion of agricultural value chains, before proceeding to set out operative recommendations for improving the effectiveness of value-chain promotion. The final section tackles the issue of the sustainability of value-chain promotion.

8.1

The promotion of agricultural value chains in the context of rural development

Because of the significance of agricultural value chains for the economic processes of the agri-food industry in many of the German development cooperation partner countries, and the focus on smallholders and small processors, the promotion of agricultural value chains is fundamentally relevant for achieving the development objectives of poverty reduction and food security. Setting up and implementing new international and national initiatives in the area of value-chain promotion and commissioning appropriate programmes and projects also help to create conducive framework conditions in the partner countries by building a local understanding of how value chains work and supporting relevant institutional capacities for successful implementation of value-chain promotion.

In the projects and programmes studied, the promotion of agricultural value chains results in productivity gains as well as improvements in quality management and in marketing. For the actors concerned, these lead to increased incomes and a general improvement of their economic situation. With regard to the development objectives of poverty reduction and food security, the evaluation found positive outcomes, although these are offset by limitations: the fact that insufficient target-group differentiation was observed in the conception of the projects and programmes is a constraint upon their options for tailoring their activities specifically to the needs of the various target groups.

The smallholder farmers and small processors which are predominantly specified as target groups do not constitute a homogenous group. In fact, they vary in terms of their access to material, social and cultural resources and hence in their opportunities to be included in a value chain. It is therefore necessary to differentiate between them further. This can be done with reference to the five Rural Worlds introduced by the OECD-DAC, for example, because this model applies the availability of resources as a differentiating criterion (see Section 2.1.1).

The target groups primarily reached by value-chain promotion are those which are “market viable” but predominantly stuck in subsistence production. They consist of often risk-averse smallholder households and small enterprises (Rural World 3). Their access to information, technologies and advisory and financial services is limited, so that they have very little capacity to make more intensive use of the resources available to them or to raise their productivity in order to earn a better and more stable income. These target groups can be reached if activities which mitigate risks – e.g. of adopting new farming methods, investing in agricultural inputs, or expanding one segment of the business – are supported in the course of value-chain promotion. Not only the target groups’ limited options for dealing with risks but also their poor knowledge about the workings of markets, as well as the lack of stable business relationships etc. call for high levels of investment on the part of development cooperation, which are reflected in the individual intervention areas (see Chapter 6). Another factor that plays a crucial role for the inclusion of these target groups are the capacities of the supporting environment, i.e. within advisory organisations, financial institutions, and various kinds of associations. For this reason, these are also targets of activities aimed at value-chain promotion. Inclusive business models which build the capacity of smallholders as reliable and competitive suppliers have great potential in this respect.

Since many households in rural areas are dependent upon additional non-agricultural income, the creation of paid employment opportunities for these target groups both in primary production and in processing are another key objective of value-chain promotion. This is a mechanism whereby households which possess no productive resources beyond their own labour (Rural World 4) can also be reached. Whether and what proportion of these target groups can successfully be reached by creating paid employment within the scope of value-chain support was a question that this evaluation could not answer conclusively. In the case studies, there was no robust evidence – apart from the African Cashew Initiative – of employment effects for this population group. When selecting the chain and the upgrading strategy, however, it must generally be borne in mind that – particularly in processing – the creation of low-threshold paid employment is at odds with the promotion of technological progress/mechanisation (aimed at boosting competitiveness).

Furthermore, it becomes evident in this context that the inclusion of both large commercial enterprises and companies (Rural World 1) and traditional larger landowners and companies which are not internationally competitive per se (Rural World 2) in value-chain promotion can be useful, because they are key value-chain actors and potential employers who can create additional income-earning opportunities for the target groups.

Value-chain approaches are not appropriate means of reaching chronically poor households (Rural World 5), since this group is often no longer economically active and is therefore reliant on social transfers in many cases. Insufficient differentiation between poorer population strata is commonly found in the conception of projects and programmes. One consequence of this is that chronically poor and other unreachable groups can be inadvertently overlooked. In order to reach these population groups nevertheless, other suitable support activities need to be implemented as a complement to value-chain promotion.

The successful inclusion of target groups, and hence also the relevance of projects and programmes with regard to poverty reduction, is also dependent on the requirements made by a value chain in terms of factors like input, labour, soil quality, the absorption capacities of the processing enterprises, and so on. The promotion of staple food chains, because they present low barriers to entry, is best suited to integrating households with comparatively poor levels of resources. This means that a larger number of actors can be reached in this way than by the promotion of export-oriented products. Moreover, considerable evidence is found that the entrepreneurial risk of participating in local staple food chains is lower, since these are less influenced by factors like price fluctuations or sudden shifts in demand. Staple food chains offer the lowest profit margins, however; and what is more, market demand is low, particularly in heavily subsistence-oriented societies. Demanding export-oriented chains, in contrast, have higher barriers to entry and therefore tend to be suited to target groups with better levels of resources. In general they offer higher profit margins. However, the entrepreneurial risk is also greater, due to factors like dependence on the global market, high price volatility, higher initial investment and higher use of inputs.

The analysis of the existing portfolio showed that in the past, food security was not an explicit objective of German value-chain promotion. Prompted by the food-price crisis of 2007/2008 it became a far stronger focus of development cooperation and has taken on increasing importance as an objective category of value-chain promotion ever since. The evaluation found strong indications that value-chain promotion makes effective contributions to food security. The promotion of staple foods, for example, contributes to greater availability of higher quality products. Furthermore, the increased income of the target groups enables them to have easier access to food in the local market. To what extent chronically poor households benefit indirectly thanks to better availability of food at cheaper prices could not be answered within the scope of this evaluation. Other challenges, such as the target groups' inadequate knowledge about a balanced diet, are only considered to a minor extent by German development cooperation in the course of value-chain promotion, since this exceeds the capacities of value-chain projects. Similarly, important additional determinants of the promotion of food security, e.g. access to clean drinking water and health services, are not a part of value-chain promotion and would indeed overburden it. Value-chain promotion can only ever be one component – albeit an important one – towards achieving food security.

The evaluation also highlighted that environmental aspects are not usually mentioned explicitly in the conception of value-chain promotion. Nonetheless, because of the promotion of good agricultural practice and other resource-conserving methods of farming and processing, a tendency towards a positive effect on environmental aspects was noted. For projects with a certification component (organic, Fairtrade), these positive

impacts are more pronounced. In particular, the firm-centric approaches under the auspices of the develoPPP.de programme fall into this category. Through the systematic integration of environmental criteria into the conception of projects and programmes, better use can be made of any potential for contributing to environmental sustainability, and negative outcomes avoided. In 2011 the BMZ introduced a mandatory Environmental and Climate Assessment for all German development cooperation programmes and projects; as yet, however, there is no publicly available evaluation of the effectiveness of the Environmental and Climate Assessment.

Value-chain promotion can be designed very flexibly thanks to its systemic approach, which can intervene both at various value-chain “stages” (production, trade, processing) and on various intervention levels (micro, meso, macro). Therefore, it also has great potential to unlock synergies across the spectrum of actors for the promotion of rural development. This versatility of application enables value-chain projects and programmes to contribute to different development objectives. But unless objectives are prioritised, there is a risk that objective systems will be overburdened so that the promotion loses its distinctness of profile and can no longer contribute appropriately to all the target dimensions addressed. Larger supra-regional projects and programmes, based on the resources available to them, may be in a position to combat this risk by, for example, integrating activities to promote staple foods alongside the promotion of non-staple foods for export, and thus contributing to various objectives at once. However, the evaluation did not find sufficient evidence to be able to draw a definite conclusion on this point.

Recommendation 1 (BMZ):

Based on their great potential both for poverty reduction and for food security, the promotion of agricultural value chains should continue to be accorded high priority in the portfolio of German development cooperation. In order to prevent overburdening of the objective systems, in value-chain projects and programmes a clear set of priorities should be defined and specified regarding the objectives to be achieved and target groups to be reached, and the promotion profile, e.g. choice of the product to be promoted, should be systematically aligned with this. For the chronically poor, who remain beyond the reach of value-chain promotion, complementary support activities are necessary. These should not be part of the value-chain promotion, to avoid overburdening it, but may be the content of other components of a project or programme.

Recommendation 2 (BMZ and IOs):

To further boost the relevance of value-chain promotion for direct poverty reduction and food security, a mandatory requirement should be introduced to examine, at the conceptual stage of projects and programmes, which staple food chains are worth promoting. These should serve as the foundation for a criteria-based decision (risk minimisation, profit maximisation, broadscale effectiveness and contribution to food security) about the choice of chain. The relevance to food security should be additionally heightened by improving the nutritional quality of the foodstuffs. This may be done, for example, by introducing or promoting special nutrient-conserving post-harvest treatments, storage and processing techniques.

Recommendation 3 (IOs):

For the better inclusion of risk-averse smallholders who fall short of direct market viability, and to safeguard their household incomes, appropriate risk-minimising strategies should be defined for these target groups (e.g. saving and other forms of asset accumulation, insurance schemes, state employment or sales guarantees, different forms of contract farming, etc.) and corresponding promotion activities carried out. The exchange of information about successful packages of support activities, the development of new approaches, and the further development and ultimate piloting of corresponding activities should be highly prioritised in order to improve the integration of these target groups into value chains.

Recommendation 4 (BMZ, IOs):

Value-chain promotion should be more strongly aligned with environmental aspects, since there is great potential for positive outcomes in this area whilst the danger of negative impacts is also present. German development cooperation has an appropriate instrument for assessing the environmental impacts of a project or programme in its Environmental and Climate Assessment (ECA). In addition, it should be examined on a case-by-case basis whether, and to what extent, cooperation between value-chain promotion and other projects oriented towards climate-change mitigation, environmental protection and resource conservation in a country may generate synergies.

8.2

Complexity in the implementation of systemic value-chain promotion

The evaluation emphasised the underlying common principle of “systemic promotion”. In the German development cooperation portfolio, systemic approaches are oriented in alignment with five key intervention areas: 1) development of the private sector, 2) market development, 3) organisational development, institutional development, business relationships, 4) access to information, technologies, advisory and financial services, and 5) quality standards and certification. Every intervention area contains specific systemic interventions which offer means for tackling different bottlenecks. Successful inclusion of the target groups in the chain is ultimately dependent on the degree of integration, both between the actors within the chain and with the supporting institutions on the meso level.

The evaluation showed that identifying the respective bottlenecks and elaborating relevant and appropriate activities from the individual intervention areas present a substantial challenge. In order to increase the direct impact of projects and programmes on poverty and food security on the target-group level, it is necessary to implement specific value-chain, context and gender-differentiated target-group analyses which incorporate social and environmental as well as economic criteria. In this way, human rights aspects can be considered right from the outset in the conception of a project or programme. Some examples of these include the consequences of the activities for women, poor or marginal groups (displacement effects), or potential adverse effects on local food security. In most cases these are aspects for which adequate data is not available, as became clear in the evaluation. Furthermore, inadequate infrastructure (including energy supply), for example, can be an obstacle to the success of a value-chain promotion intervention. An adequate analysis in advance can identify such obstacles and ensure that corresponding activities are integrated into the value-chain programme as needed.

The preponderant share of value-chain activities relate to rural areas. Whereas the target groups on the level of primary production are mainly found in rural regions, other relevant

actors in the areas of supply, transportation, processing or export may very well be based in urban centres. The often vast regional dispersal of a value-chain’s actors and its supporting environment calls for supra-regional approaches. The results of this evaluation strongly show that while the firm assignment of projects and programmes to certain regions of a country makes sense as part of donor coordination, in some ways it is counter-productive to the effective and efficient application of a value-chain approach.

It proved difficult during the evaluation to obtain specific data on the outcomes of value-chain-related activities. On the one hand, this is because in many cases value-chain promotion is integrated into comprehensive programmes for the promotion of rural development and there are no value-chain-specific reporting or monitoring and evaluation systems. On the other hand, the monitoring systems frequently fail to collect sufficient data on economic statistics or to specify them precisely. Value-chain-specific monitoring and evaluation systems are indispensable, both for the steering of programmes and for the intra- and inter-institutional learning that supports the ongoing development of the approach. The value-chain analyses carried out within projects and programmes form an appropriate starting point for the development of a value-chain-specific monitoring and evaluation system. For the purposes of a systemic value-chain promotion approach, it is not sufficient to collect production and business administration statistics on the level of primary production only. Rather, the data collection must follow the product and at least permit the calculation of value creation at each stage of the chain. This entails analysing the purchase and sale prices of the products per stage, taking account of the given costs of production. In addition, qualitative data must also be gathered with reference to the mechanisms highlighted in the intervention areas, e. g. on the establishment of business relationships. In accordance with the overarching impact logic, suitable indicators should deal with the main outcome areas of marketing, quality infrastructure and production. The recording of incomes and employment is a further aspect that makes considerable demands upon the collection and provision of data. Here, the informative value of the recorded data must be weighed carefully against the resources required to implement the procedure. In addition, the revised commissioning procedure and the resulting

subdivision into individual modules reduced the flexibility of programmes and the feasibility of long-term planning, making it more difficult to pursue sustainable outcomes.

Active steps can be taken to prevent overburdening of the objective systems by means of careful analyses and an extensive review phase during planning, as well as through continuous monitoring throughout implementation. The results of this evaluation provide evidence that the high demands of value-chain promotion frequently overextend the capacities of projects and programmes (in terms of time, human and financial resources) and especially those of the partners. Equally, the number of chains promoted within the framework of a programme has an influence on the demand for resources: it became clear in the evaluation that promoting an excessive number of chains overstrains projects and programmes, and necessitates a later reduction during the project term.

Against the backdrop of the high systemic requirements and diverse intervention areas, the broad positioning of German development cooperation in the field of agricultural value-chain promotion is useful. Distinctions can be made between pure TC or FC projects and programmes, joint programmes of GIZ and KfW, developPPP.de projects, and the PTB's CALIDENA instrument. Within this spectrum, German development cooperation possesses a multitude of institutions and approaches which are equipped to accommodate the complexity of the value-chain approach. However, the results of the evaluation underline a need for improvement with regard to the coordination between the various approaches as well as the associated cooperation and coherence. As things stand, synergies remain unexploited or effectiveness is diminished. Equally, with regard to cooperation with other donors who are likewise active in the agricultural sector, the case studies have yielded indications that there is still potential for improvement.

Recommendation 5 (BMZ, IOs):

The planning and implementation of projects and programmes must do justice to the complexity of value-chain promotion. The implementing organisations should carry out context- and gender-differentiated target-group analyses as standard practice and, building on these, formulate a full-fledged impact logic for the specific value chain which goes beyond the generic impact logic of the given programme. The differentiated elaboration of the intervention areas as well as the territorial delimitation of the promotion should also take place on the basis of these analyses. To strengthen institutional learning and to improve outcome-orientation, furthermore, a value-chain-specific reporting system and a value-chain-adapted monitoring and evaluation system should be implemented. Care should be taken to involve the partners and their capacities appropriately in this process. Activities to boost capacities in the partner countries must be integrated into the promotion to facilitate this, if need be.

Recommendation 6 (BMZ):

In order to improve the feasibility of planning value-chain projects and programmes, the possibility should exist to organise project cycles flexibly, and thus in divergence from the prescribed formats. In this way, an orientation phase for value-chain projects and programmes should be facilitated, to permit the systematic implementation of necessary and success-enhancing value-chain analyses and initial pilot activities. Over the term of projects, decisions should be made based on these analyses. In the orientation phase, the number of chains to be promoted – adjusted to the partners' and the projects' capacities – should also be defined. Because of the resource constraints affecting both programmes and development partners as well as the complexity inherent in implementing value-chain promotion, the aim should preferably be to focus on a lesser number of chains but to promote these more intensively.

Recommendation 7 (BMZ):

In light of the diverse challenges of value-chain promotion, the portfolio should continue to be broadly framed in future. The combination and coordination of different approaches and development cooperation organisations, e.g. within joint programmes, should be improved, however. Since financing and infrastructure are of such high relevance to the effectiveness of value-chain promotion, particular attention should be paid at this juncture to the closer interlinking of FC and TC in value-chain projects within the scope of joint programmes.

8.3**Advisory work and financing – foundations of effective value-chain promotion**

The key target groups are found predominantly on the micro level, where they are involved in production, trade, and processing. Often they can only be reached indirectly by supporting institutions on the meso level. The inclusion of the target groups requires a high level of time and financial resources to be invested initially, on the part of both the target groups and the supporting environment, including development cooperation.

The lack of access to advisory support and financing appropriate to the needs of the specific value chain constitutes a key bottleneck for the promotion of agricultural value chains and the effectiveness of the individual intervention areas. Considerable evidence is found that, without – or sometimes even despite – the support of development cooperation, state advisory services do not have the financial and human capacities to fulfil their advisory mandate. The lack of access to financing was frequently mentioned by the target groups as a reason for not having made necessary investments and therefore not having been able to put the contents of advisory work into practice.

The results of the evaluation showed that in the category of firm-centric approaches, lead firms take on an important role in the organisation and provision of advisory services,

inputs and financing, and can thus be effective in the inclusion of poorer target groups in (export-oriented) value chains. For structure-oriented approaches, evidence was found that when it comes to the dissemination of advisory content, a high degree of relevance attaches to the value-chain actors' organisations, at least for the purposes of a multiplier effect. Due to the limited and very varied capacities of the individual institutions, a mix of different institutions (lead firms, state advisory services, value-chain actors' organisations) appears to be useful here.

It also became clear in the course of the evaluation that improved access to financing – a key bottleneck in value-chain promotion – is not being pursued effectively. In this regard, the lack of exchange between actors on the micro and meso levels was identified as a recurrent problem. The establishment of contacts and business relationships between actors on the micro and meso levels is therefore an essential prerequisite for improving the effectiveness of promotion. The results of the evaluation underscore the high potential of systemic value-chain approaches, especially combined approaches (structure-oriented + firm-centric) with FC components.

The appropriate inclusion of women in support activities presents a special challenge. For export-oriented value chains in particular, men still make up the vast majority when activities relate to organisation, entering into business relationships, the adoption of new technologies, advisory work, and financing. In project documents, women are mostly mentioned as a target group and their integration in promotion is supported with objective indicators. However, the focus on women is often defined very schematically (e.g. women must make up a certain percentage of the smallholders benefiting from the promotion) and is not based on an analysis of the actual cultural and economic realities in the supported region. Women are frequently disadvantaged since they have poorer access to many resources that are fundamentally significant for agricultural production, such as land or production inputs. In addition, they often have limited access, if any, to local organisations and a very limited say in decision-making processes. It must also be borne in mind that there is frequently a clear allocation of responsibility that determines whether women or men are responsible for particular agricultural products or how

tasks within a process are distributed, i.e. who is responsible for sowing, fertilising, harvesting, etc. This can give rise to the situation where promotion is unable to reach women at all, even though this is the project's intention, because women do not work with the product concerned. Not least because of the previously mentioned significance of women for the household's food security, special attention should be paid to the incorporation of gender aspects at an early stage in the planning of a project or programme.

Recommendation 8 (IOs):

Based on an actor analysis, an appropriately adapted mix of organisations and institutions (lead firms, state advisory institutions, and organisations of the value chain actors) should be enabled or supported to make advisory and financial services and agricultural inputs available to the target groups. In this connection, extra attention should be devoted to the establishment and ongoing development of contract-farming systems.

Recommendation 9 (BMZ):

The BMZ should promote the development of innovative financial services, e.g. by means of contract-farming systems, refinancing mechanisms, matching funds, or indeed microfinance instruments. In this regard, especially innovative approaches that specifically address the relationships between the actors on the micro and meso levels should be piloted in selected projects and programmes. The designated pilot projects should also receive scientific backup and evaluation using experimental or quasi-experimental methods of impact assessment – and should initially be exempted from assessments of overall programme success.

Recommendation 10 (IOs):

More attention must be paid to the gender dimension of value-chain promotion. In the conception and implementation of upgrading strategies, a review should be undertaken of what impact they have on promoting the equality of men and women, particularly women's participation and inclusion in the value chain. This means that as early as in the mapping stage of a value chain, a gender analysis must be conducted of the roles of and relationships between the male and female actors, and structural inequalities identified. Promotion activities should be conceived in such a way that they promote women's access to value chains. For example, this may mean that, depending on the cultural realities, separate promotion activities have to be carried out for men and women. Advisory and financial services should be designed in such a way that they also appeal to women and address them specifically. Within the framework of the projects and programmes, women should be appointed as agricultural advisers, since female advisers can reach women better. Human and financial resources must be made available for this.

8.4

The sustainability of value-chain promotion

Overall, the systemic promotion of agricultural value chains provides good preconditions for sustaining the outcomes achieved even once the development intervention has come to an end. Firstly, continued pursuit of the economic activities can be expected simply because it is in the private-sector actors' own best interests. Nevertheless, the sustainable development of the private sector referred to here depends to a large extent on the prevailing regulatory framework conditions, particularly a country's legal system and economic policy. As the evaluation found, this can only partially be influenced in the course of a value-chain promotion programme.

Secondly, the evaluation also highlighted the significance of supporting value-chain actors through institutions on all levels of promotion (the micro, meso and macro levels) and establishing exchange, cooperation and business relationships between these different levels and among the actors on each level. Particularly in the case of firm-centric approaches, the evaluation showed that these activities persist even once the promotion has ended. Value-chain promotion has achieved a number of successes, especially in the area of supporting producers and producer unions, associations and semi-state institutions on the meso level. In many cases, however, it also became apparent that particularly for newly-created structures on the micro and meso levels – for example, value-chain committees – the assumption of ownership of these structures by the target groups, and hence their continuation beyond the end of the project, poses problems.

Recommendation 11 (IOs):

The broad support of diverse institutional structures within the scope of systemic value-chain promotion forms a sound basis for sustainable development of agriculture and rural areas. It should be retained as a core element of German value-chain promotion. In order to ensure the sustainability of value-chain promotion in future, it should – whenever possible – build on structures that are already in place. As far as possible, development cooperation should refrain from both initiating external structures and taking charge of certain functions in existing structures. To increase the actors' sense of ownership, the structures for the participating actor groups should rapidly achieve tangible improvements, particularly during the start-up phase of the promotion.



9.

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ANNEXES

A.

Quality assurance

All phases of the evaluation went through an internal and external sectoral and methodological quality assurance process. The steering and coordination of the quality assurance process were conducted by the evaluation team.

In the course of the internal quality assurance, the evaluation team ensured that the data collection and reporting met the internal evaluation guidelines of DEval. Adherence to the corresponding standards and the quality of the report itself were further verified outside of the evaluation team by means of an internal peer review.

The external quality assurance was provided by one sectoral and one methods advisor. The external advisors' particular tasks encompassed consultancy during the conception phase of the evaluation, providing written opinions on the sectoral delimitation and on the methodological procedure, and commenting on key evaluation documents. Furthermore,

the academic peer reviewer contributed his subject-specific and methodological expertise to the conceptual design and implementation of the evaluation, and to the analysis and publication of the evaluation results.

The key stakeholders of the evaluation came together in the context of reference group meetings. The reference group is composed of the bodies with political responsibility for the given object of evaluation (generally the BMZ), those with sectoral responsibility in the implementing or promoting organisations, and any other relevant stakeholders. It plays an important part as regards the professional quality and utilisation of the results of a DEval evaluation, but the independence of the evaluation is assured at all times. The reference group has an advisory function and supports the evaluation team throughout the process: that is to say, it is available to supply information and broker contacts; it makes necessary data and documents available, and it comments on the draft report. The members ensure that all relevant offices in their organisations are informed and involved, and at the same time maintain the confidentiality of the results vis à vis third parties until they have been published.

B.

Overview of the projects and programmes selected for in-depth analysis in the context of the portfolio review

In selecting projects and programmes from the overall portfolio, efforts were made to consider the broadest possible spectrum of different value-chain projects and programmes. The selection

criteria included the regional distribution, the implementation period and the type of product promoted, among other factors. In total, 13 projects and programmes from the “classic value-chain projects and programmes” category and 2 further projects and programmes from the “projects and programmes with value-chain components” category were analysed in more detail (see Sections 3.2.1 and 3.2.2).

No.	Title	Country	Promotion approach	Project number
Classic value-chain projects and programmes (Category 1)				
1	Promotion of the African cashew value chain	Supra-regional Africa	Structure-oriented approach	2009.2207.0 2012.2026.8
2	Establishing value chains from agro-forestry systems in the Amazon region	Supra-regional Latin America	Firm-centric approach	04.1003.5-501.75
3	Promotion of rural development	Timor Leste	Structure-oriented approach	2005.2137.7 2011.2249.8
4	Sustainable rural development	Peru	Structure-oriented approach	2006.2014.5
5	Conservation and management of natural resources	Benin	Structure-oriented approach	2006.2185.4
6	Strengthening the agricultural sector	Benin	Structure-oriented approach	2010.2030.4
7	Sustainable agricultural sector promotion	Burkina Faso	Structure-oriented approach	2005.2182.3 2008.2171.0 2011.2047.6
8	Promotion of market-oriented agriculture	Ghana	Structure-oriented approach	2007.2180.3 2011.2205.5 2012.2105.0
9	Private sector promotion in agriculture	Kenya	Structure-oriented approach	2004.2061.2 2007.2037.5 2010.2037.9
10	Capacity-building measures for the certification of shea nut production	Mali	Firm-centric approach	2011-108-2011
11	Establishing a certified supply chain for organic dried fruits	Philippines	Firm-centric approach	E 3308
12	Smallholder capacity building and support with production inputs in pineapple farming	Ghana	Firm-centric approach	E 0183
13	Activities for competence building in production and processing enterprises in the cashew nut industry	Burkina Faso	Firm-centric approach	2009-084-2009
Projects and programmes with a value-chain component (Category 2)				
14	Employment promotion for young people	Sierra Leone	Structure-oriented approach	2009.2292.2
15	Promotion of socially balanced economic development	Nepal	Structure-oriented approach	2008.2024.1

C.

Hypotheses and instruments matrices

The principles of a *realist evaluation* design (see Section 3.1) form the starting point and the foundation for data collection and analysis. On the basis of the (re-)constructed impact logic, causal hypotheses were developed in the course of this evaluation, consisting of mechanisms for change, context and outcome elements. In keeping with the principle of a *realist evaluation*, the formulation of the causal hypotheses follows the logic of context-mechanism-outcome configurations. This logic is reflected in the syntax of the hypotheses: context plus mechanism equals outcome. An overview of the hypotheses can be found below in the template which was used for carrying out the data collection, referred to as

the hypotheses matrix. Shown immediately afterwards is an additional template which was used to record the data-collection instruments applied, referred to as the instruments matrix.

The comprehensive analysis of the mechanisms for change in accordance with the scheme described is then normally based on a mix of data-collection methods, the aim of which is to ensure that the results are robust. Accordingly, sufficient data and information should be gathered on all three dimensions (context, mechanism and outcome). Thus, the evaluation investigates to what extent the inherent assumptions of a project or programme prove to be accurate with reference to the stated hypotheses. The active mechanisms (M) are the catalysts for a programme's effectiveness and, within a specifically describable context (C), lead to observable changes (O).

Instruments matrix

This matrix is the template used for listing the data-collection instruments for each actor level as well as the hypotheses on the micro, meso and macro levels.

Micro level

	Hypotheses	Producers	Traders	...		
IA 1	1	e.g. FGD / GINT				
IA 2	2.1.		e.g. INT			
	2.2.	e.g. FGD				
IA 3	3					
IA 4	4.1.					
	4.2.					
	4.3.					
IA 5	5					

Meso level

	Hypotheses	Advisory services	Financial services providers	...		
IA 1	1					
IA 2	2.1.					
	2.2.					
IA 3	3					
IA 4	4.1.					
	4.2.					
	4.3.					
IA 5	5					

Macro level

	Hypotheses	Partner government	Development partner(s)	...		
IA 1	1					
IA 2	2.1.					
	2.2.					
IA 3	3					
IA 4	4.1.					
	4.2.					
	4.3.					
IA 5	5					

D.

Evaluation matrix

Relevance						
Evaluation questions	Assessment criteria	Indicators	Data-collection methods			
1. To what extent is the promotion of agricultural value chains relevant to the achievement of development objectives?			Analysis of documentation and literature	Portfolio review	Expert interviews	Case studies
1.1. To what extent is the promotion of agricultural value chains aimed at achieving development objectives, especially poverty reduction and food security?	The conception of the value-chain promotion is geared towards the achievement of development objectives, particularly poverty reduction and food security.	The concept documents of the value-chain promotion declare poverty reduction and food security to be explicit objectives.	●	●	●	
	The pathways to the achievement of the development objectives are underpinned by a coherent impact logic.	Documentation of the value-chain-specific impact logic exists and verifiably reflects the intervention logic.	●	●	●	
	The conception of the value-chain promotion is geared towards the needs of the target groups.	Degree of coherence between the activities of the value-chain promotion and the needs of the target groups.	●	●		
		A differentiated target-group analysis was carried out in advance.	●	●	●	●
1.2. To what extent does the promotion of agricultural value chains correspond to the strategies and development objectives in the partner countries?	The objectives of the value-chain promotion correspond to the partner countries' national development objectives.	Objectives of the value-chain promotion are mentioned explicitly in the national strategy documents and development plans of the partner countries.	●	●		●
		Target groups of the value-chain promotion are specified as target groups in the national development plans of the partner countries.		●		●
		Value-chain promotion is a documented strategy for achieving objectives in the national development plans of the partner countries.	●	●		●
1.3. To what extent does the promotion of agricultural value chains coincide with the objectives and guidelines of the BMZ?	The objectives of the value-chain promotion correspond to the objectives of the development strategy for agriculture and rural development.	Degree of coherence between the objectives of the value-chain promotion and of the development strategy for agriculture and rural development.		●	●	●
	The objectives of the value-chain promotion correspond to the core task of poverty reduction and the objectives of the Country and Sector Strategies.	Degree of coherence between the objectives of the value-chain promotion and the core task of poverty reduction as well as the objectives of the Country and Sector Strategies.		●	●	●
1.4. To what extent are the objectives of the private sector within the framework of promoting agricultural value chains relevant for the achievement of development objectives?	The entrepreneurial objectives and strategies of the private sector are coordinated with the development objectives.	Degree of coherence between the private sector's entrepreneurial objectives and strategies and the development objectives.	●	●	●	●

Effectiveness

Evaluation questions	Assessment criteria	Indicators	Data-collection methods			
2. To what extent did the promotion of agricultural value chains contribute to achieving the direct objectives (outcome level) of the development activities?			Analysis of documentation and literature	Portfolio review	Expert interviews	Case studies
2.1. To what extent have the promotion activities contributed to an increase/improvement in agricultural production/ productivity?	Agricultural production within the value chain has increased.	Production (total yield) of target groups has increased.		●		●
	Productivity within the value chain has improved.	Productivity (per hectare productivity/ labour productivity) of target groups has improved.		●		●
		Innovative approaches for increasing agricultural productivity and management capacities are being used by target groups (e.g. cultivation techniques, improved seed).			●	●
2.2. To what extent have the promotion activities contributed to an improvement in quality management?	Quality management of the value-chain products by value-chain actors has improved.	Post-harvest losses have been reduced.				●
		The quantity of rejected deliveries has fallen.			●	
2.3. To what extent have the promotion activities contributed to an improvement in marketing?	The marketing of value chain products has improved.	The sales of value-chain products have increased.	●			●
		Profits of the target groups from value-chain products have risen.	●			●
	Target groups are enabled to market value-chain products better.	Access to potential buyers has improved (e.g. by means of supply contracts, information on quantities and quality requirements).	●		●	●
2.4. To what extent have the promotion activities contributed to an increase in value creation?	Value creation within the agricultural supply chain in the partner country has increased.	The value added to the product along the value chain (in the partner country) has increased (e.g. through the introduction of new steps in processing).	●			●
	Value creation within the value chain has increased on the target-group levels.	Incomes of the target groups have increased/stabilised because of the increased value creation.	●			●

Effectiveness

Evaluation questions	Assessment criteria	Indicators	Data-collection methods			
2. To what extent did the promotion of agricultural value chains contribute to achieving the direct objectives (outcome level) of the development activities?			Analysis of documentation and literature	Portfolio review	Expert interviews	Case studies
2.5. To what extent have the promotion activities contributed to increased and improved employment of the target groups?	Quantity and quality of employment in production have improved.	The number of actors employed in production has increased while productivity has been maintained or improved.	●		●	●
		Working conditions in production have improved (e.g. pay, contract duration, work safety).	●		●	●
	Quantity and quality of employment in processing have improved.	The number of actors employed in processing has increased.	●			●
		Working conditions in processing have improved (e.g. pay, contract duration, work safety).	●			●
	Quantity and quality of employment at other stages of the value chain have improved.	The number of actors employed at other stages of the value chain has increased.	●			●
		Working conditions at other stages of the value chain have improved (e.g. pay, contract duration, work safety).	●			●
2.6. To what extent have the promotion activities contributed to an improvement in resource management?	Sustainable resource management is being applied.	Activities for more efficient water use are being applied.	●		●	●
		Activities for the improvement of soil quality are being applied.	●		●	●
		Activities for the strengthening of ecosystems are being applied.	●		●	●
2.7. To which unintended positive and/or negative effects has the promotion of agricultural value chains contributed?	Exploratory question; does not permit formulation of any assessment criteria.	Exploratory question; does not permit formulation of any assessment criteria.	●	●	●	●
2.8. Which factors in the promotion of agricultural value chains were conducive or obstructive to the achievement of objectives?	Exploratory question; does not permit formulation of any assessment criteria.	Exploratory question; does not permit formulation of any assessment criteria.	●	●	●	●

Efficiency

Evaluation questions	Assessment criteria	Indicators	Data-collection methods			
3. To what extent were the objectives of the development activities achieved in an economically efficient way?			Analysis of documentation and literature	Portfolio review	Expert interviews	Case studies
3.1. To what extent was the time period for implementing the development activities and achieving the objectives appropriate?	The objectives were achieved in an appropriate period of time.	The planned period for achieving the objectives is appropriate.	●	●	●	●
		The objectives were achieved in the planned period of time.	●	●	●	●
	The development activities were implemented in an appropriate period of time.	The activities could be implemented in the planned period of time.	●	●	●	●
3.2. To what extent was it possible to achieve synergies in the promotion of agricultural value chains by means of development partnerships with the private sector?	Added value is generated by development partnerships with the private sector.	Similar activity by the private sector would not have taken place without the financial promotion by the BMZ (additionality).	●	●	●	●
		Financial promotion of the private sector led to further private-sector investments (within and outside the promoted value chain).	●	●	●	●
		Financial promotion of the private sector had no negative effects on competing companies in the partner countries.	●	●	●	●
3.3. To what extent could synergies be achieved in the promotion of agricultural value chains through cooperation with other (donor) organisations?	Added value is generated through coordination with other (donor) organisations in the planning and implementation of promotion activities.	The promotion activities of German development cooperation are complemented by the promotion activities of other donors.	●	●		●
		The promotion activities of other donors are complemented by the promotion activities of German development cooperation.	●	●		●
3.4. To what extent were the activities and objectives within German bilateral development cooperation implemented coherently and complementarily?	Coherence and complementarity within German development cooperation.	Degree of coherence and complementarity in the conception and implementation of joint programmes.	●	●		●
		Degree of coherence and complementarity in the interplay of different instruments and modalities.	●	●		●

Impact

Evaluation questions	Assessment criteria	Indicators	Data-collection methods			
4. To what extent does the promotion of agricultural value chains contribute to the achievement of the development objectives?			Analysis of documentation and literature	Portfolio review	Expert interviews	Case studies
4.1. To what extent does the promotion of agricultural value chains contribute to poverty reduction?	Household incomes of the target groups have increased.	Income of actors from paid dependent employment has increased.	●	●	●	●
		Income of actors from self-employment has increased.	●	●	●	●
	Livelihoods of the target groups have improved.	Country-specific indicators.	●	●	●	●
	The target groups are integrated in value chains.	Target groups are better able to produce and/or market their products because of the value-chain promotion.	●	●	●	●
4.2. To what extent does the promotion of agricultural value chains contribute to food security?	The value-chain promotion has contributed to increased food availability and nutritional diversity.	The year-round availability of foods has increased for the target groups.		●	●	●
		Nutritional diversity has improved for the target groups.		●	●	●
4.3. To what extent does the promotion of agricultural value chains contribute to the improvement of other development objectives?	The promotion of the value chain has made a contribution to sustainable resource management.	Water is being used efficiently.		●		●
		Soil quality has improved.		●		●
		The availability of ecosystem services has improved.		●		●
	The promotion of the value chain has made a contribution to improving gender equality.	Women as economic actors are actively making use of access to services.		●		●
		Women have a higher income because of the value-chain promotion.		●		●
		Women are active in farmers' organisations and other organised bodies.		●		●
4.4. To what extent does the promotion of agricultural value chains produce broadscale effects?	The effects of the promotion activities have spread beyond the direct target groups.	Innovations introduced by means of value-chain promotion are being adopted by actors outside the value chain.		●	●	●

Sustainability

Evaluation questions	Assessment criteria	Indicators	Data-collection methods			
5.1. To what extent can the improvements in the framework concessions be assessed as lasting?	The legal and regulatory framework conditions for value chains are in place.	Procedures and bodies exist through which due regard can be given to the concerns of the private sector during the shaping of legal and regulatory framework conditions.	Analysis of documentation and literature	Portfolio review	Expert interviews	Case studies
		A cross-sectoral strategy is embedded for the promotion of trade and industry and of the given location, and is being implemented by public and private decision-makers.				
	Farmers' organisations/associations are sustainably strengthened.	The farmers' organisations/associations finance themselves from member contributions and represent the interests of their members.				
		The members exert demand for the services of their organisations.				
	The supply of inputs is sustainably improved.	The actors exert demand for inputs.				
		Inputs appropriate to meet needs are available even after the project has ended.				
	Financial services are sustainably available and adapted to the needs of the various value-chain actors.	The actors exert demand for financial services.				
		Financial services appropriate to meet needs are available even after the project has ended.				
	Business relationships among value-chain actors are sustainably improved.	Supply contracts exist and are adhered to.				
		The product requirements (quality, quantity etc.) at the different stages of the chain are known and fulfilled by the actors involved.				
	Advisory services are sustainably improved.	The actors exert demand for advisory services.				
		Advisory services appropriate to meet needs are available even after the project has ended.				
		The principles and promotion activities for promoting poverty-oriented value chains are incorporated in curricula and advisory and training documents.				

Sustainability

Evaluation questions	Assessment criteria	Indicators	Data-collection methods			
5. To what extent can the results achieved through the promotion of agricultural value chains be assessed as lasting?			Analysis of documentation and literature	Portfolio review	Expert interviews	Case studies
5.2. To what extent can the projects and programmes promoted through development partnerships with the private sector be assessed as lasting?	The projects and programmes promoted through development partnerships with the private sector are sustainable.	The projects and programmes persist beyond the end of the contractual term of the development partnership.		●		●
	The compatibility of projects and programmes with development objectives is sustainable.	The compatibility of projects and programmes with development objectives persists beyond the end of the contractual term of the development partnership.		●		●
5.3. To what extent does the value chain follow environmental sustainability principles?	Environmental sustainability is embedded within the chain.	Production and value creation are based on environmentally sustainable management criteria whilst productivity is maintained or increased.		●	●	●
		There is awareness among actors of the significance and benefits of environmental sustainability.		●	●	●
		Institutional framework conditions foster environmentally sustainable economic activity.		●	●	●

Human rights issues

Evaluierungsfragen	Bewertungskriterien	Indikatoren	Erhebungsmethoden			
6. To what extent are strategies and development activities for the promotion of agricultural value chains linked to human rights principles and standards?			Analysis of documentation and literature	Portfolio review	Expert interviews	Case studies
6.1. To what extent is the promotion of agricultural value chains linked to the needs of disadvantaged groups, and how far does it contribute to involving these groups and increasing their competitiveness?	In advance of the value-chain promotion, target-group and context analyses are carried out and taken into account in the conception of the promotion.			●	●	●
	Disadvantaged groups, e.g. smallholders affected by poverty, are target groups of the value-chain promotion or are taken into consideration in the course of the promotion.			●	●	●
	Disadvantaged (target) groups participate in the drafting and/or revision of land-use plans, and participate appropriately in the leasing or sale of plots of land.			●	●	●
	All elements of the livelihoods of smallholders are considered integrally.			●	●	●
	The share of value creation on the smallholders' level is increased.			●	●	●
	Additional paid employment is created in production and processing.			●	●	●
	The proportion of women in production, trade and processing is increased.			●	●	●
6.2. To what extent does the promotion of agricultural value chains contribute to an increase in local food production or to an increase in incomes, and hence to food security?	Staple foods and foods for the local market are deliberately considered when making the choice of value chains to be promoted.		●	●	●	●
	In the promotion of non-staple foods or agricultural export products, diversification is part of the promotion strategy.			●	●	●
	The promotion of staple foods is aimed at supporting food security.		●	●	●	●
	The quantity and/or quality of the promoted products are improved (nationally and/or locally).			●	●	●
	Income gains achieved by means of value-chain promotion facilitate access to food for the target groups.			●	●	●

E.

Contributors

Composition of the value-chain evaluation team

Core team

Dr Marcus Kaplan	Senior evaluator and team leader
Simon Bettighofer	Evaluator
Dr Sabine Brüntrup-Seidemann	Evaluator
Dr Martin Noltze	Evaluator
Caroline Orth	Project administrator

Contributors	Function and field of responsibility
Christian Berg	Sectoral advisor
Dr Heinz-Peter Wolff	Methods advisor
Anja Kühn	Consultant (FAKT) – portfolio review
Dr Jochen Currle	Consultant (FAKT) – portfolio review
Dr Susanne Hofmann-Souki	Consultant (FAKT) – portfolio review
Dr Nadja El Benni	DEval – internal review
Christoph Hartmann	DEval – internal review
Franziska Krisch	DEval – internal review
Dr Thomas Schwedersky	DEval – internal review
Salifou Konaté	Evaluator – Burkina Faso
Dr Bambio Yiriyibin	Evaluator – Burkina Faso
Juliet Biney	Evaluator – Ghana
Dr Eli Gaveh	Evaluator – Ghana
Yaw Amo Sarpong	Evaluator – Ghana
Sarah Deiss	Intern
Nora Große	Intern
Selma Somogy	Intern
Anja Weber	Intern

F. Schedule

Concept phase	Preparatory work and definition of the object of the evaluation	
	11/2013 – 01/2014	Consultation with BMZ
	01 – 03/2014	Consultation with implementing organisation main phases; Exploratory analysis of documentation and literature
	04/2014	Writing of concept paper
	05/2014	Circulation of concept paper to reference group
	06 – 12/2014	Analysis of documentation and literature
Inception phase	06/2014	Reference group meeting for discussion of concept paper
	Compilation of impact logic and development of methodological approach	
	07/2014	Drafting of a proposal for the choice of case studies and distribution to reference group
	08/2014	Written feedback from reference group on proposal for the choice of case studies
	08 – 10/2014	Performance of the portfolio review
	09/2014	Development of the methodological approach
	10/2014	Drafting of an overarching impact logic
	10 – 11/2014	Writing of the inception report
Data-collection phase	11/2014	Distribution of inception report to the reference group
	12/2014	Reference group meeting for discussion of the inception report
	Main phase: Data collection	
	12/2014	Preliminary mission – Ghana
	01/2015 – 06/2015	Analysis of documentation and literature
	01 – 04/2015	Conducting of telephone interviews of key informants
Synthesis phase	02 – 03/2015	Workshops for (re-)construction of impact logics of the case studies in Ghana and Burkina Faso; preliminary mission – Burkina Faso Pilot case study – Ghana
	03 – 04/2015	Development of data-collection instruments
	04 – 05/2015	Conducting of case studies in Burkina Faso and Ghana
	Main phase: Data analysis	
	06 – 09/2015	Development of an analysis grid Analysis of results from the case studies Evaluation of the analysis of documentation and literature Synthesis and triangulation of results from each analysis method
	09/2015	Reference group meeting on the results
	10/2015	Drafting of conclusions and recommendations

Implementation phase	Main phase: Writing of evaluation report	
	11/2015 – 01/2016	Writing the final draft of the evaluation report
	02/2016	Circulation of the draft evaluation report to the reference group
	03/2016	Reference group meeting for discussion of final draft of the evaluation report
	04/2016	Revision of evaluation report Compilation of the grid for comments Compilation of annexes to the report
	05/2016	Proofreading of the evaluation report
	06/2016	Layout of the evaluation report
	Dissemination phase: Implementation of evaluation results	

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